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Are Diseases Increasing?

THERE can be no question that the prevalence of certain diseases has increased during the last half-century. Conspicuous among these are diabetes and nervous diseases, these being due largely to the mental stress of a harder struggle for existence.

The increased consumption of alcohol and the free use of narcotics are also responsible for many morbid conditions unknown to our hardier forebears. But, in comparing the present prevalence of diseases with that of the past, there are several factors for which due allowance is often not made.

One of these factors responsible is that our forefathers died, as a rule, at a considerably younger age than their descendants; if they did not perish by the sword, they were mowed down from time to time by the plague or various devastating epidemics. In this way they escaped many of the diseases, not only of old age, but of advanced middle life. Again, it must not be forgotten that each generation represented to a much larger extent than is now the case the survival of the fittest. Many of the weaklings died in childhood.

The triumph of modern hygiene is that it has preserved a large proportion of these lives; on this we may fairly pride ourselves

from the humanitarian point of view; but we must not forget that it has the serious drawback of lowering the general standard of health and of sapping the vigor of the race.

Another factor that must be taken into account in estimating the prevalence of disease is our vastly greater power of recognizing its presence, whatever the form.

What, then, is the cause of the multiplication of disease?

Is this multiplicity merely apparent, being due, first, to the progress of the natural sciences, and, next, to the new knowledge we have obtained with reference to pathology?

While the fact of this new knowledge is indisputable, this later hypothesis is insufficient to explain the absolute silence maintained by the most distinguished physicians of past years with reference to a great many of the diseases of our epoch. While biological science has made immense strides in recent years, we cannot deny to the physicians of ancient times a profound spirit of observation. Yet we look in vain for the least mention of diseases such as locomotor ataxia, progressive muscular atrophy, Parkinson's disease, Basedow's disease, general paralysis of the insane, and the different sort of cerebrospinal sclerosis, all of which are frequent today.

It is, however, by no means safe to infer, because no mention is to be found in old writers of diseases of obscure and perplexing symptomatology, that they did not exist. They undoubtedly existed but were not recognized.

Where progress has been made, is in the prevention of acute infectious and preventable diseases, so that the average age at death has been greatly extended.

We can prevent to a great extent the diseases incident to middle and advanced life. What is needed, is to teach the people how to live, and by judicious early treatment arrest disease at its inception.

Men should be taught as if you taught them not.
And things unknown proposed as things forgot.

—Pope.

THE ACTION OF PHYSOSTIGMINE

In an exchange of homeopathic proclivities, I find this curious case:

"A man reports that he has been an invalid since childhood; he is now 56 years of age, has tried at least one hundred remedies for his ills, with less benefit than he has just secured from physostigma. Thinks it must have struck the cause, but just what, unless it is spinal disease, he can not understand. He says: 'I feel stronger and more self-poised, with a wonderful lessening of nearly all aches, pains, and disabilities, than I have for years.'"

Commenting on the case, the homeopathic editor takes a page and a half to say that he does not know why the drug did the man good. Physostigma's provings would require nearly sixteen pages to detail. Looking through an unabridged materia medica, an inexperienced man would think that nearly every drug covers the whole range of human ills.

Nevertheless, there is, in the brief account given, material for a close approximation to a diagnosis. The man had suffered, from childhood, a great variety of symptoms—this includes most diseases that would have gotten well or killed him long since. Constipation and fecal toxemia occurs as the most likely cause of his sufferings, and since physostigmine stimulates

intestinal peristalsis, the *raison d'être* of the relief is apparent.

Why go round Robin Hood's barn in search for an explanation when the obvious one is right under your feet to be stumbled over? The trouble is, that constipation is a too common everyday affair to be thus easily accepted. Disease and remedy must be things far distant, occult, mysterious, or the crowd will not gape in awe at the doctor's wonderful learning. Our confrère mentions, in discussing the case, tetanus from injuries, chorea, general emaciation, paralysis agitans, congestion of the spinal cord, spasms, myopia, pain after using the eyes, congestion of the eyes, and spasmodic action of the heart, as favorably influenced by the drug; but these are only conditions, and their ultimate cause may be anything from worms to spinal disease. Not one of these, seems to fit the case. Chronic "constipation" covers a multitude of sins!

"I could name lots of conscientious physicians in the small towns, and even at the cross-roads, who are today doing scientific work that is not appreciated at its full worth by the community in which they live. But I hope some day to see the people wake up to a realization of their duty to the country doctor—God bless his soul."
—Dr. V. Berry, in The Oklahoma Medical News-Journal.

"CONSISTENCY"—ERGOT

There are some people who would like to see us sacrifice truth to appearances, utility to rule. Because we advocate the alkaloids, they expect us to favor nothing else. Since we believe that it is usually best to separate the single active principles and use them, they want us to advocate this idea as to all plants. But this we can not do, for the reason that some plants do not permit of it. We have, therefore, urged that the best means of securing the beneficial effects of cannabis, for instance, is to use a good extract of that plant; of rhubarb, the powder; of ergot, the aqueous extract. Until the chemists have given us pure active principles that afford the action we require, we must content ourselves with using the preparations named, and similar ones, with all their recognized disadvantages.

In *Merck's Archives*, Livingstone gives us another of his papers on ergot. Hi

experience of over thirty years leads him to exactly the same conclusion at which we have arrived, namely, that the water-extract is the best preparation presented thus far. Like ourselves, he has tried the numerous active principles offered, but found none satisfactory when the clinical test was applied.

Standardization by means of the cock's comb has not remedied the uncertainty, for there is too wide a biologic chasm between the gallinacæ and mankind to permit observations on the bird to be transferred to humans, without question.

That ergot contracts uterine fiber has been known clinically for centuries.

As to the effect of ergot on blood pressure, Livingstone believes it differs with conditions. If there is an abnormal state of any circulatory area, ergot regulates this both ways. If this area presents dilated vessels, ergot contracts them; if its vessels are contracted, ergot acts—presumably—on the vessels of the remainder of the circulation, and by contracting them, forces blood out and restores equilibrium. This is a comprehensible statement, at least.

The author claims, however, that ergot reduces vascular pressure when too high. The limit of action for ergot is functional deterioration; it can not act on degenerated tissues. These views are deduced from clinical observations. They can not be tested by physiologic experiment when there is no abnormal condition on which the ergot could act.

Comparing physiologically tested preparations clinically, he does not find the two to correspond. He quotes Wood and Hofer, who also found that the toxic power of ergot was not a criterion of its physiologic activity. He does not accept ergotoxin, even if it does bring about a "long-enduring contraction of the walls of the arterioles."

Here we have the lines drawn. Dr. Livingstone attributes to ergot a property little short of marvelous—that of restoring circulatory balance by contracting dilated vessels or relaxing spastic ones. We get this double action from the union of aconitine and digitalin; and, so, if ergot affords

the same, we must conclude that the latter contains two principles, one a relaxant, the other a pressor. We can not believe any one single agent can accomplish both. If this should prove to be the case, we can readily comprehend how each principle may be appropriated by the cells that require it to restore equilibrium.

But ergotoxine is not ergot, any more than morphine is opium, or strychnine is nux vomica. Ergotoxine has a definite property; two of them, since it also contracts uterine muscular fiber. It will be employed for these two purposes whenever and in whatever disease we wish to induce the effects that principle is capable of producing. It is another condition-remedy, not a disease-specific. Some day, we may confidently hope, the relaxant principle of ergot will be isolated, and then we need not give the entire drug and trust to luck, but use whichever principle we may need. Meanwhile we have in aconitine, veratrine, gelseminine, and especially digitonin, relaxants admirably qualified for such work.

Dr. Livingstone has imbibed some of the "whole-drug" fallacy, having failed to see the important point to which his observations tend. He ignores the variable powers of drugs depending upon variable productions of antagonistic alkaloids. Nevertheless, his observations carry him along the road we have traveled, and reach conclusions that harmonize with our own.

Practice has frequently opened the way to theory.
—Abraham Jacobi.

THE RED-CROSS SEAL CAMPAIGN

As in former years, so this year the National Association for the Study and Prevention of Tuberculosis intends to put red-cross Christmas seals on the market, which are to be used in addition to postage stamps on letters, as a means of sealing packages, Christmas presents, and so forth, and the proceeds of which will be employed in the struggle against the great white plague.

This pleasing mode of raising money for a meritorious work, if the writer remembers

correctly, had its inception in Sweden several years ago, and has now extended through practically all civilized countries, being accepted by most people as a simple and attractive means of adding their mite for the good cause. The cost of the individual stamps is minute, but the sum total of the revenue derived is considerable. We notice from press dispatches that in 1908 more than \$135,000 was realized from the sale; in 1909, nearly \$225,000; in 1910, nearly \$310,000. The slogan of this year's campaign is, "A million for tuberculosis through red-cross seals!"

Let us all get together and encourage the good work in the matter of red-cross seals. The sacrifice entailed is small; the benefit is great, because the result of concerted action. Tell your families and tell your clients of this matter, and encourage them to buy and use the seals.

Do not mistake mere noise for enthusiasm; the ass has a beautifully sonorous voice, but everybody knows he is an ass just the same.

HEMSTITCHING MEN: A SURGICAL FANTASY

We learn from a Minneapolis newspaper that Dr. E. Wyllys Andrews, of Chicago, has invented a surgical sewing machine. This does away with the handling of the needle and thread by the operator, and facilitates and hastens operation, and thus relieves the patient sooner from the dangers of prolonged ether narcosis.

Unfortunately the item does not add that Dr. Andrews has also devised the necessary apparatus for rolling the patient out to such a flattened condition as will enable him to be deftly passed beneath the needles of the sewing machine. When this feat is accomplished, we shall soon see much improvement in this painful portion of the surgical technic. Medical journals will soon teem with articles in which the various merits of hemstitch, crossstitch and other devices hitherto only known to the fair sex will be presented and hotly debated at medical societies. We shall hear of the peritoneum being puffed, hemmed, felled, gored and otherwise fancifully manipulated, while the greater omentum will certainly

be the better for artistic shirring. A too enterprising hernial protrusion, it may confidently be predicted, will, in that happy era, be restrained by quilting.

But we are getting beyond our depth; and having floundered along thus far, beg leave to submit the remaining discussion of the question to the doctor's wife. Undoubtedly that worthy personage has long been persuaded that her husband's ear would be improved by a band of passementerie, and perhaps some other parts of his anatomy might be the better for judicious trimming. Undoubtedly, one effect of the innovation will be greatly to enhance the importance of woman in medicine, for in this department she can certainly give us cards and spades, and beat us out of our boots, if not to a frazzle.

PHARMACOPEIAL CHANGES

The Committee of Revision of the United States Pharmacopeia has given out a preliminary list of the remedies to be retained, the remedies to be dropped, and those to be added. This list contains some surprises—and some things which seem hard to explain. For instance, among the remedies to be admitted we find picric acid, which has been in common use for the treatment of burns for we do not know how many decades. Our old friend, Hoffman's anodyne (*spiritus aetheris compositus*) is to go; so is fluid extract of digitalis, wine of ipecac, cerium oxalate, and a whole lot of the old favorites, among them such popular (!) oxytocics as pennyroyal, savine and that old friend (?) of the unfortunate, the pill of aloes and myrrh.

Among the articles to be admitted we find apiol, aspidospermine, calcium chloride, calcium glycerophosphate, calcium lactate, creosote carbonate, erythrol tetranitrate, phenolphthalein, quinine and urea hydrochloride, sodium perborate, sodium glycerophosphate, trioxymethylene (paraform), theobromine sodiosalicylate, and diacetylmorphine (heroin). Query: Why were not most of these admitted years ago?

There are other additions, of course, and doubtless there will be still others, but on the whole the list is an exceedingly short

one. We look in vain for active-principle remedies like arbutin, boldine, brucine, bryonin, emetine or its salts, the digitalis glucosides, and other substances of this class, so familiar to readers of this journal. We would respectfully urge their consideration by the committee, as well as such things as calcium phenolsulphonate (the sodium and zinc salts are official), copper arsenite, and a larger number of the salts of quinine, strychnine, mercury and iron. Certainly the arsenates of iron, quinine and strychnine are as worthy as medicinally as the tincture of asafetida or "sassafras medulla."

Why also should not the Pharmacopeia be brought down—or up—to the level of the men who should use it, i. e., physicians and pharmacists. There may be justification for the adoption of such terms as diacetylmorphine, acetphenetidinum and sulphonethylmethanum, yet certainly the dignity of this great work would not be compromised if the committee would deign to add here and there a word of explanation, that he who reads may run *speedily* about his business.

We shall watch with interest the progress in the making of the ninth edition of the United States Pharmacopeia—a work of which every physician in America should show an active appreciation.

"Kiver yo' house 'ginst a rainy spell and de Lord'll keep off de wedder."—Negro Proverb.

THE TREATMENT OF SYMPTOMS

So much has been said about the duty of making an accurate diagnosis before attempting any scheme of treatment, and the danger, yes, the "criminality" of adopting any other course, that it is refreshing to read an article which punctures this bubble, and brings the question down to the hard earth of common sense.

Of course, the physician should arrive at the underlying cause in every case just as soon as he possibly can, but, if he waits to treat his patients until he secures all this knowledge, a goodly share of them will be in the hands of the undertakers before he has found out what the trouble is—or was.

Dr. O. Victor Limerick, in the September number of *The Physician* says: "The very best physicians do, in fact must, treat symptoms. The truth is that the skill of a clinician is often determined solely by the extent of his ability to alleviate certain symptoms." Continuing in this vein, he adds:

"It is conceded, of course, that no sane practitioner ever, under ordinary circumstances, rests his efforts on the mere alleviation of dangerous or distressing symptoms; he is mindful of the fact that the ultimate welfare of the patient invariably requires that radical treatment be instituted, and he acts accordingly. But he is also aware that symptoms alone are frequently a source of grave and immediate danger to the patient, and, for this reason, they merit the most painstaking attention. Moreover, he knows perfectly well that there are occasions when days of careful observation are necessary before a positive diagnosis can be reached.

"A patient might be found in a state of syncope, the cause of which is, say, obscure. Would any sensible man, under such circumstances, neglect the treatment of the cardiac or respiratory symptoms merely because of his inability to at once determine its underlying cause? Hardly!

"Another might be found in the agonizing pain of hepatic or renal colic. Would any sensible man, under such circumstances, neglect this distressing symptom and at once prescribe for its underlying cause? Hardly!

"Another might be found suffering intense headache due to anemia. Would any sensible man, under such circumstances, withhold an analgesic and at once prescribe a hematinic? Hardly!

"Another might be found suffering agonizing dysmenorrhea due to obstruction of the cervical canal following a flexion. Would any sensible man, under such circumstances, withhold an analgesic and merely advise an operation? Hardly!

"Regardless, then, of all that has been, is being or will be said by self-centered opportunists on the subject, the fact remains that symptoms *are* treated. Furthermore, the practitioner that *does* treat

them whenever occasion warrants is a Godsend to the sick-chamber, a blessing to mankind, and an ornament to his profession."

From the "Amen" corner we loudly voice our endorsement of every word which Dr. Limerick says. When people are sick they want a doctor who will do something, do that something intelligently and be quick about it. Amen! Brother, say it again!

Dr. Limerick's article on "Gallery Play" is only one of the many good things in this, the second, number of *The Physician* which is published at 44 E. 31st St., New York City.

The distant mountains that uprear
 Their solid bastions to the skies
 Are crossed by pathways that appear
 As we to higher levels rise.

—John G. Whittier.

SOME UNTOWARD FACTS REGARDING FLETCHERISM

Perhaps no department of medicine, in practice, ignores so completely the old established principles of biology and physiology as dietetics. Albeit, it is well known that digestion does not entail the proper absorption, and hence the assimilation, which prevents intestinal toxemia; while it is definitely settled that the human body is wrapped around a tube, and what is in the tube is not yet in the body; while it is also established that starch and sugar digestion takes place partly in the mouth, protein chiefly in the stomach and partly in the intestines, while starch, sugar and fat are digested chiefly in the intestines; still, indigestion is regarded as of mouth or stomach origin, hence the popularity of mastication and pepsin nostrums for dyspepsia, irrespective of its character.

Furthermore, digestion, which is the preparation of food for absorption and assimilation, is regarded as the end and not as the means. All sorts of morbid conditions charged to indigestion are often due to fermentative changes in food that has been properly digested in too great quantities for an organism unsuited for its absorption and assimilation. Although

many states, like scurvy in children, hepatic and renal instabilities in the insane and neuropaths, result from monotony in diet, and while many blood-vessel degenerations and strains result from hyperacidoses and toxemias produced by undue use of carbohydrates, still the old myth that all these states are due to an undue meat diet serenely dominates dietetics, despite all physiologico-chemic revelations to the contrary.

One popular fad which ignores these physiologic axioms is Fletcherism. The proper mastication of food is prescribed as the nostrum for all assimilative and absorptive digestion disorders. One natural result of this fad is the excessive or disproportionate use of starchy and sugary foods. These substances, as has already been pointed out in *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*, are very frequent sources of paralyses, occurring in persons who do not eat meat excessively and who abstain from alcohol.

The rationale of such paralysis is simple. When people enter on the climacteric, between forty-five and sixty, there is a potentiality of blood-vessel changes, and a general upset of the constitution from diminution of function. If there be no excessive strain at this time the new physiologic balance is attained and the organism resumes its usual health. A mental or physical strain at this time is apt to affect the blood vessels and elimination through its influence on the liver and kidneys. If diet be adjusted to elimination no strain results, but seeming facility of digestion, as the supposed result of thorough mastication, is apt to lead to hemic hyperacidity, usually resulting through the preponderance of carbohydrate food, which lends itself readily to fermentative changes and hyperacidity; and, also, this dietetic habit results in an indicanemia, through the morbid ready absorption of waste protein. These absorbed materials are great sources of blood-vessel strain.

As reliance on Fletcherism alone produces not only these, but a tendency to monotony of allegedly easily digested foods the untoward effects of Fletcherism are liable to be peculiarly dangerous at the periods

of stress, when the need for elimination is great, while at the same time eliminatory powers are decreased. Man, not even primitive man, has the eliminatory powers of the lower animals. To an increased size of brain and extremities have been sacrificed hepatic, pulmonary and intestinal possibilities. Hence, he needs peculiar care at these periods of stress.

Thorough mastication is desirable, but it is not a panacea. In whatever manner we may eat our food it is desirable, and at periods of stress it is essential, that it be adjusted in quantity to the needs of the body, and nicely proportioned between protein, carbohydrates and fats, for the necessities of the metabolism.

Like all other fads, Fletcherism becomes dangerous, in so far as it is accepted as a cure-all and as a prevent-all. There is almost as much peril in the physical-culture nostrums, in the hydiatic nostrums, the psychic nostrums, in starving-cures, mastication-cures, and all the other present-day pseudo-medical eccentricities, as there was in the alcohol "bitters" and other almanac-advertised fakes of a generation ago.

People whose digestive apparatus and eliminative organs are going wrong are not good subjects for the medical tinker. They need the careful, individual attention of the best obtainable physicians.

Ambition is a dynamic force which, coupled with energy and clean living, will bring success to any man.

WHERE IS WYOMING MEDICINE?

The medical profession of Wyoming has nothing to say. Nothing happens out there. No disease is peculiar to the state or presents local features worth noting. No Wyoming surgeon runs tucks in anybody's peritoneum or suggests modifications of the Murphy button. No enterprising member seeks to arouse local pride or to develop local interest by founding a medical journal.

To keep the name of the commonwealth alive, a Wyoming Section has been added to *The Western Medical Review*, the journal of the Nebraska and Wyoming State Medical Societies.

Noting this interesting fact on the front cover of said journal, we turned to the Wyoming Section, to see what the medical profession of this wild and woolly region had to offer for the good of the order. The Section consisted of nearly half a page of heading, a page of abstract of Tom Williams' (Washington, D. C.) paper on poliomyelitis, and a half-page abstract from the *J. A. M. A.* on schools of Austria. That's all.

But hold! We begin to recollect. There was a massacre in Wyoming—and of course that explains it. The doctors of Wyoming are dead ones. We drop a briny tear over the pall and tender our sympathies to the surviving neighbors in Omaha, Nebraska.

We must learn to suffer what we cannot evade; our life, like the harmony of the world, is composed of contrary things—of diverse tones, sweet and harsh, sharp and flat, sprightly and solemn; the musician who should only affect some of these, what would he be able to do? He must know how to make use of them all, and to mix them; and so we should mix the goods and evils which are consubstantial with our life; our being cannot submit without this mixture, and the one part is no less necessary to it than the other.—Montaigne.

EUCALYPTUS IN SCARLET-FEVER, ALCOHOL IN DIPHTHERIA

Dr. Robert Milne, physician to a hospital for children in London, reported a new treatment for scarlet-fever. He applied oil of eucalyptus to the skin and phenol to the throat, keeping the child enveloped in an atmosphere charged with eucalyptus. The suggestion was received with savage disapproval by his colleagues; the only speaker who did not condemn it claimed the method was old, having been taught by his father. Innovations are probably unwelcome in England, and one who contemplates introducing a novelty there should be prepared for every possible form of opposition.

Dr. Millard of Leicester reported 100 cases treated by Milne's method. He found the period of infectivity was not shortened to anything like the extent claimed by Dr. Milne, or to any appreciable extent; he could not satisfy himself that complications and sequels were appreciably diminished, and there was some reason to think

that the number of albuminuria cases was increased. This may not mean much—some men are “not satisfied” as to the efficacy of treatment until a brick house and lot falls on them. Leicester, be it remembered, is the lair of the antivaccinationists.

In another respect Dr. Millard's report, as quoted in *The Lancet*, is more definite. Diphtheria is treated in the Leicester hospital without alcohol.

Formerly it was supposed that the tendency to heart failure in this disease rendered alcohol imperatively indicated in large doses. The discovery that heart failure here is due to nerve degeneration from toxemia led one to believe alcohol could not be of real benefit. Woodhead then determined that in horses alcohol interfered with the establishment of immunity, by which nature cures all zymotic disease. Hence alcohol seems to be actually contra-indicated, and it was not employed in the Leicester hospital during 1910. Only about half the cases of diphtheria were removed to the hospital, but these included the most serious ones. Antitoxin was used. Out of 114 cases, there were eleven deaths, but it is uncertain how much of the good results was due to the disuse of alcohol.

In America, since the day when N. S. Davis proclaimed that alcohol was unnecessary in the treatment of disease, there has been a steady approximation toward his position. While alcohol still has its advocates, the belief in its value is by no means general, and its opponents can not now be looked upon as heretics. One by one the applications once made of it have been discontinued, and now if one advocates this potent spirit he does so apologetically.

When we see the intensely insular Briton assume such an attitude toward his colleague, we are not surprised that he ignores the brilliant discovery of a foreigner, Dr. Ussher, an American medical missionary, as to the control exerted over scarlet-fever and other infections by saturation with *calx sulphurata*. This was too radical for John Bull, revolutionizing the whole conception of therapeutics in infections, and necessitating a realignment for which he would require half a century to prepare himself.

How did he ever come to accept vaccination, anesthesia, and the modern germ theory?

I never let an idea escape me, but write it on a piece of paper and put it in a drawer. In that way I sometimes save my best thoughts on a subject.—Abraham Lincoln.

IS PELLAGRA A DISEASE OF THE ALIMENTARY TRACT?

There is an interesting paper upon this topic, by Dr. J. Clarence Johnson of Atlanta, Georgia, in the “Tropical Medicine” number of *The Southern Medical Journal*. Dr. Johnson has had considerable experience with this disease, and presents in his paper a tabulated study of twenty cases. A careful review of the symptomatology convinces him that the disease is distinctly one of perverted metabolism, having its first expression in the epithelial structures of the alimentary tract.

Of special interest is the fact that in these 20 cases, only 6 had free hydrochloric acid in the gastric secretions. In these 6, with one exception, the eruption was slight; but in this exception the eruption was severe, and there was the highest acidity and the least nervous disturbance. In 14 cases lacking hydrochloric acid, diarrhea was present. In the 8 cases with absence of hydrochloric acid, but presence of rennin, the diarrhea was less frequent, less severe and less persistent. In no patient with hydrochloric acid was there diarrhea, except one, due to a transient cause. The membranous deposit in the mouth, with one exception, was present only in those lacking hydrochloric acid. In the patients with atony and ptosis, 3 had hydrochloric acid; 2 had rennin without hydrochloric acid. The first recognizable symptom in 14 cases was directly referred to the alimentary canal. In only 3 were sore hands the first symptom, and in all of these there was a previous history of indigestion in some form.

Dr. Johnson believes that the absence of hydrochloric acid is an important factor in the disease, not necessarily etiologic, but at least significant of its gravity. The eruption he thinks of less significance than that ascribed to it by many.

Dr. Johnson has had excellent success in the treatment of these cases with a mixture of potassium chlorate, tincture of chloride of iron, and pepsin, used in connection with 1-2 grain doses of calcium sulphide, which are given three times a day, and in severe cases somewhat oftener. It is significant that calcium sulphide was also used with success by Dr. Mizell of Atlanta, whose theory concerning pellagra and his method of treating it are presented in these pages, this month. See page 1145.

OURSELVES AND THE LAITY

Dr. John B. Murphy in his presidential address before the American Medical Association suggested that the public has a legitimate curiosity concerning the methods of the doctors. Since general practitioners decline to gratify this, people turn to the quacks who pretend to take their patients into their full confidence. Dr. Murphy also said that the layman does not like the "mysteries" of the medical profession and that many people manifest a marked preference for the physician who discusses their maladies freely and who tries to give them an intelligent idea of the purpose of the treatment which he prescribes.

The last assertion is undoubtedly correct, and it is quite proper that, wherever possible, physicians should explain to their patients, as much as may be expedient, although it is hopeless to try to explain the "why" of the particular procedures adopted; yet if Murphy has really said that the layman does not like the mysteries of the medical profession and thereby suggested that the quacks do not have mysteries, he either misstated facts or must have been misunderstood by the reporter, because the mysteries of the quacks are deep and insolvable. It is well known that they impress the patients who fall into their nets by overpowering them with an appearance of profound learning, and smother them with a profusion of technical terms, although they may appear to take the patients into their confidence.

Dr. Murphy is right in suggesting that medical lore should in part be popularized. Every sensible physician has acted upon

that advice for many years, and the question which has so frequently been put in CLINICAL MEDICINE, whether we doctors should take our patients into our confidence, has to a certain degree always been answered affirmatively. It is undoubtedly wrong for a physician to pose as a great gazabo and to tell his patient "Thou shalt" or "Thou shalt not" just simply because I, the Great, say so. That was the kind of procedure that kept the laity so wofully ignorant of the simplest problems of hygiene and domestic medicine. It is far better to teach and educate the people in the elementary principles and to have them cooperate with us intelligently, rather than render blind obedience, by doing which they may frequently make mistakes, because of their blind obedience, when emergencies arise which we could not foresee and which would lead us to modify our directions.

Do not be discouraged if your early education was neglected. Ambroise Paré, the father of modern surgery, knew neither Latin nor Greek, his French was crude and provincial, and he received his training not in the schools but as an apprentice to a barber-surgeon; yet Paré became the greatest surgeon of his time, and left an immortal name.

PROTECTIVE PERIOD OF VACCINATION

There is no room for sentiment, theory or faddism in the army. Stubborn facts rule in matters military. If vaccination is of value in preventing disease, the soldier must be so protected. In *The Military Surgeon* for July, Lieut. Col. C. E. Woodruff, U. S. A. Medical Corps, discusses smallpox and vaccination. His conclusions, based on a study of his official experience, are:

1. One good vaccination in three places on each arm, in infancy, generally but not always confers lifelong immunity against vaccinia and smallpox.

2. Cases taking smallpox or revaccination show, by the scars, that the original vaccination was not thorough as a rule.

3. There are no cases of smallpox on record after two undoubted successful vaccinations.

4. No persons are immune against vaccination. Failure means dead lymph,

improper application or removal of the live virus.

5. If an adult has two good scars from infancy and a proper vaccination fails, he should be held immune, but to cover exceptions, revaccination should be repeated, though not oftener than every three years.

6. If good scars show two vaccinations, at least one in adult life, the man is immune and needs no further vaccination.

The method of single vaccination is not satisfactory. The best results follow the three insertions on each arm.

Never judge a man by the umbrella he carries; it may not be his.

GENIUS AND INSANITY

It is an exceedingly difficult matter to draw the line which separates the sane from the insane. When we study the diagnostic traits of mental diseases, we begin to doubt whether some of their associates whose mental processes we have hitherto held in the highest respect are not, to put it mildly, in questionable condition. If this is true of the average man how much more of the martyrs, heroes, and devotees, whose acts make history?

For example Martin Luther had hallucinations, Peter the Great and Napoleon the First were both epileptics, as was Julius Caesar. Rapheal was affected with suicidal mania, Richelieu, on occasion, imagined himself a horse; Descartes was followed by a spectre; Cromwell was a hypochondriac and had visions; J. J. Rousseau was a melancholy madman; Swedenborg imagined that he went to heaven on a white horse; Mohammed was an epileptic; Dean Swift was partially insane by inheritance; Shelley had hallucinations; Charles Lamb and his sister were both victims of insanity; Coleridge was a morbid maniac; Milton was of a morbid temperament, modern ideas of hell being formed by his descriptions of a diseased imagination.

But probably the most marked example of insanity combined with perseverance, and bravery unequalled in history, is that of Joan of Arc, who gave us the astounding picture of an ignorant peasant

girl going about with a standard in her hand, announcing to the world that she would rescue France from her enemies because the Virgin Mary appeared to her every day and commanded her to do so. There is not an alienist living today who would have hesitated a moment as to the question of her insanity.

Many a person whose mental poise is badly balanced becomes eminent through a combination of circumstances and the time favorable for radical measures, joined to an ignorance of the forces he combats against. The mere audacity of the act stamps him as madman or man of genius, as you please; while the results, whether good or bad, depending on the train of circumstances following the act, canonizes him or relegates him to oblivion. The day for genius has passed with the ignorance of past ages. The hard-working, intelligent plodder, whose temperament is a well-balanced one, is the man of the hour.

PNEUMONIA AGAIN—AND CALCIUM

This time it's lime. J. R. Mitchell says so, in *The Medical Record*, and both Mitchell and *The Record* are mighty good authority. Mitchell is a teacher of chemistry in the Fort Worth Medical College, and he looks at disease from the chemist's standpoint. That is not saying or suggesting that his standpoint is a disadvantageous one or that what he sees isn't there. But these things must be considered in judging his theory.

Calcic salts have been used in pneumonia before. Brunton gave the chloride as a heart tonic, Barr to thicken the sputum, Crowbie to abbreviate the duration, Moir to afford relief, Couldry to stop headache and slow the pulse, Selkirk because lime-workers seemed immune. Mitchell seeks to reason out, on chemical lines, why these things are so. He finds the pneumococcus avid for lime, flourishing on it, and perishing when the supply is exhausted. Fact one.

The excised heart may be kept beating by perfusion with water containing lime, and stops when lime is withheld. Fact two.

The urine of pneumoniacs contains no chlorides—or lime. Fact three.

The pneumonia stomach is hyperacid with hydrochloric acid—the chlorides are retained and form acid, causing gastrointestinal troubles. Fact four.

Inference: That the hydrochloric acid is formed plentifully to snatch the needed lime from the food and restore the calcic balance to par.

Deduction: That much of the pneumonic symptom-totality is due to lime starvation, that element being purloined by the pneumococci because demanded for systemic defence.

Development: Pneumonia is a coccus invasion, the symptoms, including dyspnea, being general in origin, not local. Pneumonics have dyspnea without consolidation. The latter is simply a natural measure to establish a pulmonary filter for straining out the hemic parasites, which occasion crisis. Here, in the solidified area, leukocyte and parasite fight out the battle. Chills whip up the venous current; fever hinders coccal propagation; thirst induces an increased supply of lime in the water drunk. Anorexia prevents withdrawal of blood from the firing line to supply digestion; the angry, bounding pulse forces more blood through the lungs with phagocytic reinforcements. Garrison and enemy both avidly eat up lime and, since that is exhausted, the blood refuses to coagulate. Attendant pleurisy fixes the lung, favoring phagocytosis. Calcic poverty occasions convulsions. "Nothing remotely resembling a toxin has been isolated from the cultures of the pneumococcus. The toxemia is simply an expression of calcium poverty," avers Mitchell. Death is due to calcium poverty. Pulmonary edema is due to permeability of tissues from lack of lime.

With these premises established, it is evident that the symptoms we have ignorantly attempted to combat are the patient's best friends. Don't use local treatment, expectorants, inhalations or pulmonary antiseptics. Just give lime, more lime, and add lime; with rest and support. Cold baths and air are "harmful and brutal." "Pulmonary antiseptics ranks with the use of intestinal antiseptics in typhoid—both provoked by a hastily assim-

ilated knowledge of pathology." "The fever needs no special attention." "If pneumonia often winds up an alcoholic debauch, then alcohol often winds up a pneumonic debauch." "Guaiacol increases lung secretion or predisposes to edema of the lungs." Lung antiseptics interferes with phagocytosis. Quinine is undeniably harmful, causing delayed crisis, and paralyzing the leukocytes.

The curative treatment is a diet of milk and lime water, besides calcium chloride, 10 grains every three hours.

Dr. Mitchell's argument is logical, and admitting the correctness of his premises, and their comprehensiveness, his conclusions are correct. But after all theorizing in medical matters, there comes the final test, the touchstone, of actual application.

If he is right, the others are wrong; if his treatment is right, its application must give better results than the wrong and injurious methods they employ.

Dr. Mitchell reports 33 cases treated on his system, with 2 deaths, a mortality of 6 percent. Both deaths occurred within twelve hours after admission to hospital, "which means before the treatment was fairly instituted." But when we compare this result with statistics of Juergenson's treatment—raw beef, red wine, cold baths, and maximal doses of quinine—all most harmful according to Mitchell—we find Juergenson's results rather the better. His figures are also more significant in that they number many hundreds of cases. His few deaths were those of patients not expected to recover, of terminal pneumonias, etc., and excluding these, he had practically no deaths. Pretty good for a "radically wrong" method, with remedies "altogether harmful!"

Then there's our own method—elimination of the factor of fecal intoxication, and regulation of the vasomotor conditions so as to keep the patient comfortable, and his fever and other symptoms under control. Scarcely ever do we hear of a death under this treatment, so it can not be exactly radically wrong.

Nevertheless Dr. Mitchell's proposition commends itself to our judgment far more than Juergenson's and we are disposed to

favor the former to a greater degree than the foregoing criticism would imply. We should hardly go so far as to advise increasing the fever, exciting the bounding pulse to still loftier saltations, irritating the pleura into more extensive inflammation, or exciting more widespread infiltration of the blocked lungs. Still, we would advise the systematic administration of calcium salts in full doses, in addition to the measures common sense and experience alike commend. If to the calcium we add iodine, which seems to have a directly antagonistic action upon the pneumococcus, a real addition may be made to pneumonia therapy. And we cannot give up the belief that measures that render the patient more comfortable, enabling him to rest, sleep, eat and digest, do him good, even if we are unable to demonstrate the benefit by chemical ratiocination.

Just one point more. Dr. Mitchell's side-slap at intestinal antiseptics shows he has no comprehension of the reasons for their use. He concludes we give them to "kill the bugs," and lets it go at that. Yet, if he were asked if he would employ typhoid stools as dressings for cutaneous ulcers, he would scarcely reply affirmatively. Clinical evidence has established the efficacy of the intestinal antiseptics so firmly that their advocates await complacently the explanation of their efficacy well content with the results they obtain.

Wisdom is knowing what to do next; Skill is knowing how to do it; and Virtue is doing it.—David Starr Jordan.

THE TYPHOID FLY: A SUGGESTION

People are at last awaking to the menace of the housefly. It has been proved guilty of transmitting typhoid fever, and is strongly suspected of agency in the spread of diphtheria, the exanthemata, erysipelas, gangrene, and probably tuberculosis. The designation of this nuisance as the "typhoid fly" is useful in calling public attention to one of the perils it brings us, but objectionable in that the term seems to limit the fly's pernicious activities to a scope much narrower than really is the case.

The appreciation of an evil comes first; then the means of abrogating it are to be

considered. Screens and other means of excluding the insect from our homes are a matter of course; the destruction of those that succeed in finding entrance follows. The nuisance that destroys the pleasure of taking meals in the open air is more difficult to handle. For this it is desirable to find more radical remedies.

Since the fly breeds in manure and similar filth, the use of fly-proof receptacles for such materials is advisable. One careless person opens the way to countless millions of flies, however, and this alone is rarely attended to in an effective manner. Recently visiting a town in southern Illinois, the writer mentioned the scarcity of flies, and was informed that there had been placed in the streets an effective form of fly-trap that had captured incredible numbers of the pestiferous pests.

These are effective to a certain extent, yet not altogether. We must devise methods in which people will take more direct personal interest. Men are surely as lazy as they dare be, and need the whip or the lure to inspire them to activity.

When the Turks ruled the island of Cyprus they found it overrun with locusts. Their remedy was effective—they offered to buy the locust eggs at a price that set the entire surplus population to hunting energetically for the eggs. The taxes were rather excessive the first year, but as the Turk did not pay it *he* did not worry. Next year locust eggs began to become scarce, and it was not many years until they were no longer to be had, the insect having been eradicated from the island.

Those who are familiar with the collection of drug-plants in the United States know that the demand for them leads to their eradication. The collectors of ginseng and golden-seal have each year to go farther afield for their supply, while the price has steadily risen. This stimulates the search, and as a consequence nearly the entire eastern half of the United States has been denuded of these plants.

In one of the consular reports there appeared an item stating that a number of barrels of dried flies had been shipped from Germany to the United States. Inquiry developed that these had been used as

chicken feed. Chicken fanciers know that these fowl require animal food, and will starve if it is not furnished them. Chickens that are confined and fed on vegetable food alone soon begin to eat each others' feathers to satisfy the craving for the nutriment they require, although their troughs may be well filled with vegetable food.

There is no necessity of importing flies for this purpose. If they have a market value, as seems to be the case, this should be known; and the use of such fly-traps as would capture them would be stimulated. This seems to be the most definite proposition yet made in the way of abolishing the fly nuisance. Give the beast a value that will sufficiently stimulate the people in general to use the fly-traps. A single season would go far toward accomplishing the desired object.

Do you sometimes say that luck is against you? It isn't so. If you fail, it is not a matter of luck any more than when you succeed. A man gets in this world what he goes out to get. If he anticipates failure, talks failure, fears failure, what can he get but failure?

FIGHTING WITH GOLD BULLETS

We see, in the press dispatches that "bullets of solid gold were used by the Yaqui Indians in fighting against Porfirio Diaz in the recent Mexican revolution." It is related that in the hospitals, where many of the wounded soldiers underwent operations, the discovery of the golden pellets was a common occurrence, yet this cheering intelligence is tempered by the statement that "few patients received enough of them to pay the doctor bills."

Even with the uncertainty regarding the weight of those golden bullets there are many physicians in this country who would welcome a wholesale immigration of "Yaqui Indians." If they could be persuaded to use some of their ammunition upon the thousands of generous (?) citizens and citizenesses who demand the doctor's services, but who, once that service is rendered, are unwilling or unable to give anything in return for it, then a bounty might be paid for every new comer. There are few communities which could not profitably employ the individual time of at

least one able-bodied and straight-shooting Indian.

Nor would we all demand that the missile be gold. Silver would do for most of us—and many of us would be satisfied if the Indian would shoot our patients full of sand—sand enough to come to the front like honest men and confess that they owe the doctor at least a square deal.

Why should Mexico send these belligerent citizens to the hemp fields of Yucatan? We need them here.

ABOUT HOSPITAL MANNERS

A Kansas City (Missouri) newspaper recently discussed the charge made by Dr. J. F. Binnie, chief surgeon at its city hospital, that there is a deplorable lack of good manners of the military sort among the internes. The doctor complains that when he appears at the hospital for his rounds, the internes are not ready to receive him and to accompany him, and that they even sometimes keep him waiting several minutes if they happen to be busy with a patient. The doctor demands that every hospital should cultivate an "atmosphere," that when the chief surgeon or chief physician comes to take charge of his department at any time during the day, there should be a senior interne waiting at the front door to take him to his work and assist him, that the interne should salute him with the proper deference and be to him what an orderly is to his commanding officer.

Although as a nation we do not yield to any other people in courtesy and good manners, this sort of misplaced militarism seems at first sight excruciatingly funny. Fancy a lot of internes kicking their heels in the hall of a hospital, like bellboys, waiting for the chief to arrive, and fancy them bowing to the ground, or saluting like sentries when the great and mighty does make his august appearance. Fancy them falling in line and walking behind their superior with profound deference and bated breath, speaking only when spoken to, and then with polite reservation, "Yes, sir"; "no, sir"; "please, sir."

Binnie's proposition reminds us of conditions as they obtain in Germany, where military customs prevail through all classes and where teachers, superiors and chiefs are received with much show of deference. In our country we are too busy and consider that we have done our duty sufficiently well when we bid a new arrival a courteous good morning.

We are vividly reminded of an experience which the house officer in a southern tuberculosis sanitarium had with a noted German professor, one of the brightest of Virchow's former assistants. The chief of the sanitarium had gone to Germany and the professor was put in charge. The first morning, when he came to make his rounds, the house officer, with his book under his arm, started to walk with him through the different rooms, when the latter halted abruptly, glared at the luckless assistant, and exclaimed: "You walks behindt!" This professor also expected that, whenever he came to the laboratory, the bacteriologist should stand up and salute; and he demanded that all men whom he might meet in passing through the corridors lift their head-coverings and that the women bow. This sort of thing is most amusing to us of simple democratic ways. Such rigmarole may do very well in an army-ridden country like Germany, but it seems strained and opposed not only to common sense but to good taste, in this country.

If we would devote half as much time to criticising our own work as we do pointing out other people's faults, the chances are our own jobs would prove more profitable.

EFFECT OF CHLOROFORM UPON THE TISSUES

Some important data in regard to the influence of chloroform upon the tissues are described by G. Herbert Clark in an article contributed to *The Lancet* of January 21.

In these experiments small doses of chloroform were administered to rabbits, and then their weight was taken day by day.

When the chloroform was administered daily, the animal's weight fell rapidly. If

given on alternate days, there generally was but little change, although in a few instances a marked reduction in weight took place. When the chloroform was administered by inhalation, the kidneys and liver suffered considerably, the degeneration being greatest in those animals which survived for a longer period. The spleens were invariably engorged with blood, enormous phagocytes being present, and were distended with red corpuscles and often with pigment. The heart-muscles often appeared flabby and the walls were unusually thin. The liver also suffered when chloroform was administered subcutaneously. When given by the stomach the poison was not so rapidly fatal as by either of the two other methods. The average length of life was sixteen days.

The conclusions reached after this important series of experiments were as follows:

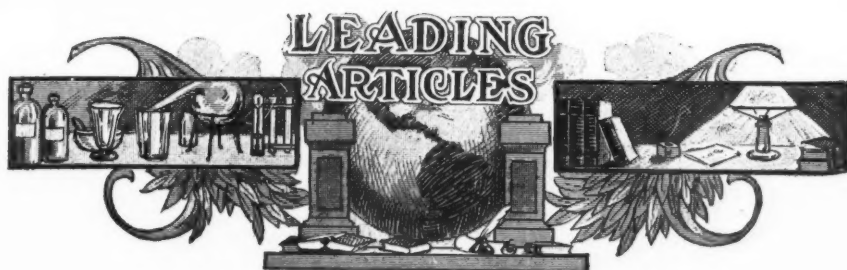
1. Chloroform, in small doses, repeatedly administered by the respiratory passages, subcutaneously or by the stomach, rapidly kills rabbits.

2. The liver shows degeneration of the cells sometimes so marked that the whole center of the lobule is broken down into débris. The cells in the center of the lobule are early affected, those further out, later. Fat is always present, generally in large quantities.

3. The kidney suffers to some extent, but relatively more when the chloroform is inhaled than when injected or given by the stomach. Fat is occasionally found in degenerated cells.

4. The spleen shows intense congestion, the sinuses being packed with red blood-corpuscles. Along with the red corpuscles an orange-colored pigment is generally present, which reacts to the stain for iron. A large number of very large phagocytes is present in most instances. The average weight of the spleen was 0.46 Gram heavier than that of the controls when chloroform was inhaled, and 0.59 Gram and 0.17 Gram heavier when injected and when given by the stomach, respectively.

5. Degenerative changes were observed in the cardiac muscles. Fat was not observed in any of the hearts examined.



The Etiology, Nosology, and Treatment of Pellagra

The Drying Linolin-bearing Seed Oils and the Abstraction of Sulphur as Underlying Causes

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EDITORIAL NOTE.—Pellagra is perhaps among the greatest medical problems now confronting the American physician. Here is a conscientious effort for its solution, based upon a logical and carefully worked-out hypothesis. In Dr. Bowling's paper, which follows this one, there is another theory—another plan for treatment. Study both.

IN the preparation of this communication I have consulted many standard works on fats and oils (Lewkowitsch, Wright, Brann, etc.) and most of the writings on pellagra published in the English language, especially A. Marie's "Pellagra" (translation by Lavinder and Babcock), and every statement herein made as a fact, to support the theory set forth, is based upon scientific and commercial literature.

Etiology

Any theory, to merit credit, must be consistent with the facts. For the history of pellagra, the reader is referred to the work mentioned. The first condition that is to be considered is conformation to history. All will agree that there is only one cause for the disease. Nearly all supporters of the maize-theory are driven by facts to the conclusion that maize is not the only cause of pellagra.

As pellagra is a new disease in the United States, we should look for some new factor that has entered into the conditions of life. As it is conceded by all who have presented

theories that the disease is noninfectious and noncontagious, and as Sambon's conception will not cover the facts attending the development of pellagra in this country, we are forced to look for some vast change in the conditions of life which parallels the progress of this malady. It is claimed that the change which would account for pellagra in the United States is to be found in the fact that there has been much spoiled corn consumed in more recent years, whereas thirty years ago no spoiled corn entered into the diet of the people inhabiting the affected regions.

Until the question is settled, it is well to admit spoiled corn as a cause of pellagra; at the same time, most writers and investigators admit that it is probably not the only cause. This being the case, we should look for yet other changes in modes of life and other possible causes.

The Substitution of Cottonseed Oil for Animal Fat in the Diet

The one great departure in diet that has been inaugurated during the past twenty-five years is that from animal-fat to vege-

table-fat consumption. A casual investigation will convince anyone interested that the cottonseed oil industry parallels the development of pellagra in the United States. We have entered the ranks of oil-consuming nations. It can be shown that all nations afflicted with pellagra are large oil consumers, and that wherever drying (linolin-bearing) vegetable oils are used to any extent for edible purposes the inhabitants are afflicted with pellagra.

Cottonseed oil belongs to the semi-drying order of oils. Below is given a table of this class of oils, together with their place of origin. Many other commercially less important oils are omitted, because less used and only supplementing the more common varieties.

PARTIAL LIST OF SEMI-DRYING EDIBLE OILS	
<i>Kind</i>	<i>Place of Origin</i>
Cotton-seed.....	United States, India, Egypt, China, Russia, Brazil, Mexico, Japan, Turkey, etc.
Sesame-seed.....	The Levant, India, Egypt, Java, Siam, Algeria, eastern and western coast of Africa, southern Rhodesia.
Maize.....	United States, Argentina, etc.
Beech-nut.....	Produced in Europe in 1713, but not at present.
Pinot.....	Brazil and Guiana.
Kapok.....	East and West Indies, South America, Mexico, Africa.
Brazil-nut.....	South America.
Luffa-seed.....	East India.
Rape-seed.....	India, northern France.
Pumpkin-seed.....	Austria, Hungary, Russia.
Sunflower-seed.....	Hungary, India, China, southern and southwestern Russia.
Poppy-seed.....	Asia Minor, Persia, India, Egypt, South Russia, northern France.

Poppyseed oil is a drying oil, containing a large percentage of linolin, and it is in extensive use for culinary purposes. Some of the oils enumerated contain a low percentage of linolin and hence may be of no importance as an etiologic factor in the origin of pellagra.

Laws regulating the importation of seed oils into some olive-growing countries have, in recent years, been enacted, with a view to protecting the home industry. Some countries growing enormous quantities of oleaginous seed export it, consuming very little or none of the oil. Such is the case in China and Japan.

These oils differ from the nondrying kind in that they contain linolin, which is

the drying agent. The percentage of linolin varies, being 60 percent in cottonseed oil, and 65 percent in poppy-seed and sunflower-seed oils.

Parallel Prevalence of Pellagra and Seed-Oil Consumption

Some of these oils have been used for culinary purposes by the people of southern Europe for centuries. It is significant in this connection that the first mill for crushing seeds for oil was established in Marseilles in the year 1817 and that pellagra was first reported to the Royal Society of Medicine in 1829.

A striking parallel is that the introduction of cottonseed oil into Egypt, as a substitute for olive oil, was followed by a report of the occurrence of pellagra. Commercial reports show the extent and area of the consumption of seed oils, and these reports show that pellagra coexists with the consumption of this class of oils, except as modified by climate.

In southern Europe, where pellagra began, these oils, because they are cheap, have been eaten by the peasant classes for centuries as a substitute for animal fat and olive oil.

It may be possible to obtain enough oil by eating maize to produce the disease. However, in view of the extent of maize consumption in the South, which fifty years ago far exceeded the amount consumed at present, it seems improbable unless the diet excludes all other food, especially fats. It is very probable that different degrees of diseased seed and grain will furnish an agent very potent in producing disease. Such a matter as rotten cotton-seed or a few bushels of dead rats in all stages of putrefaction in a vat of oil might render refining inadequate.

It is probable that the oil from such seed will produce much the same symptoms as are produced by the continuous eating of the sound oil, but with the difference that the symptoms from the diseased grain would be immediate and transitory, while those from sound oil would be delayed and in proportion to the quantity and length of time over which it is being consumed. A careful study of the experiments that

have been performed with extracts of spoiled corn tends to show that the results were obtained by a solution of the oxidized products of the oil.

Linolin as the Underlying Causative Factor

Another fact this theory is consistent with is that these oils are capable of producing the disease. The food-oil seeds of this class really undergo decomposition. The constituent which decomposes so readily is linolin.

When linolin is exposed to the air it is oxidized into linolic acid. Linolic acid combines with alkalis, forming salts which undergo oxidation even more readily than do free linolin or linolic acid. Linolin also has a strong affinity for sulphur, giving rise to a compound that does not oxidize. When linolin is brought into contact with an oxidizing agent like alkaline potassium-permanganate solution it oxidizes more rapidly than in open air, with the same successive formation of linolic acid, sativic acid, azelaic or linusic acid, and ultimately isolinusic acid, besides aldehyde, according to the strength of the solution.

As has been demonstrated, when these drying oils are eaten there is a deposit of linolin in the tissues, and as the conditions are the same in the presence of the alkaline blood containing hemoglobin, an oxidizing agent, there seems to be no reason why this oxidation should not occur. It is perhaps true that linolin may be taken as food within certain limits and produce no deleterious action. This limit is probably restricted only by the amount of sulphur present with the food and in the tissues of the body.

The oxidation products of linolin are the agents suspected of being the cause of the disease. A more complete knowledge of these end-products will probably throw a clear light upon the symptoms and pathologic anatomy. Their nature is well enough known, however, to warrant the statement that they can produce the symptoms.

Observations in Animal Feeding

Experimental evidence that this is true is abundant. Only a brief outline of these experiments can be given here. White rats that have been fed a small amount of

cottonseed oil daily, in addition to a general diet, after a month die from a two-hour exposure to the sun. (Personal observation.) It is known to every farmer in the cotton-belt that cotton-seed and the meal are poisonous to hogs, horses, and cattle. The seed and meal can be fed to farm-stock, with any degree of safety, only in very limited amounts. Cows that are giving milk may eat larger amounts of seed or meal and hulls than dry cattle. It is probable that the immunity of milch cows lies in the fact that the oil is eliminated as butter-fat and not stored up in the tissues. The presence of the oil in butter has been demonstrated. When cows are fed cottonseed meal through the calving period they are liable to die or miscarry, and the calves will likely die.

In Germany oil pressed from sesame-seed that has undergone "heating" is known to be poisonous, and the oil-cake poisonous to cattle. Cottonseed products can be fed with greater impunity in winter than in summer.

The question naturally arises as to the freedom from disease of cattle fed on corn. Oil of corn contains only a small percentage (about 15 percent), while cottonseed oil contains 60 percent.

This theory is the only one yet advanced that is consistent with all the facts. It is the only one by which all the symptoms can be explained.

Symptomatology

There is only one characteristic symptom of pellagra—the dermatitis. All names (erythema, eruption, etc.) given to this symptom have failed to comprehend the exact nature. This symptom when uncomplicated, as stated above, is characteristic. Except in some cases, there is present an erythematous dermatitis around the genitals and anus from local discharge, and irritation of perspiration on opposed surfaces; the dermatitis is always confined to those surfaces exposed to the heat and light of the sun.

The Characteristic Dermatitis

The features of the dermatitis vary greatly in different individuals, from a

slight roughness to a severe inflammation.

Unaffected by treatment or secondary infection, pellagrous dermatitis is always dry, without pus or exudation of serum. An embalmed epidermis, with varying degrees of reaction inflammation involving the underlying tissues, describes the condition. There may be only a slight desquamation or a bleb-like formation. Where desquamation or shedding of the embalmed epidermis is complete there remains a delicate, smooth, complete skin. The desquamation is slow—over several months—in mild cases, and rapid, lasting one to four weeks, in severe cases.

When the desquamation is in large scales or crusts that curl and cut into the delicate underlying skin, infection takes place and the so-called moist erythema is produced. Destruction of the epidermis may be so complete that a glove-like cast of the hand can be removed. With rapid destruction of fat, the characteristic atrophied appearance of the skin and tissues at the site of the dermatitis is seen. This changes to a normal appearance when the patient takes on weight.

It is consistent with this theory to believe that a number of months may elapse after discontinuing the use of the incriminated oils before the danger of developing the symptoms is passed. How long a certain area of fat-deposit will remain in the body is in part governed by the amount and character of the food eaten. It may be true that a remnant may remain for an indefinite period. In one instance a severe outbreak of pellagra developed six months after the exclusion of these products from the diet.

The disease may develop at any time while any of the oil remains in the tissues. If the dermatitis appears in the autumn and is arrested before all of the linolin is oxidized it necessarily follows that it may recur the following spring if it is not removed during the winter, albeit the consumption of culpable oil is discontinued. In none of my cases in which cottonseed oil was excluded from the diet has the disease recurred in two seasons. In two cases where the subjects continued to eat cottonseed oil it

recurred, in one for five years, in another, in one year. In several instances in which the dermatitis disappeared in the early spring the attack recurred to a slight degree in one or two months.

In the last-named cases the area affected was most marked in those parts not previously affected. This behavior of the dermatitis, so far as I know, has not been mentioned. This fact further bears out this theory, in that it shows that the conditions attending the dermatitis are none other than the character of the tissue and the action of the heat and light of the sun may determine.

Application of the Author's Hypothesis

A careful study of the conditions concerned in producing this one characteristic symptom will aid in an application of this theory.

There is no prodrome in pellagra. The patient may or may not have constitutional symptoms during the first days of hot weather. To say that there is anything approaching a regular spring and autumn exacerbation is an error. When the patient is lean of hand the dermatitis is slight. If the hands are exposed during a hot period in December the dermatitis appears. When the patient is confined to the house and protected from the sun the constitutional symptoms are benefited and the dermatitis disappears. It may appear at any time of the year, provided the sun is hot enough and there is a layer of fat to be acted upon.

When the dermatitis occurs in the early spring, and the fat is all destroyed, the patient, on account of hot weather, is not vigorous, the digestion is impaired, and he takes on flesh slowly. In four or five months another layer of fat has been deposited. The weather begins to get cooler; the patient feels better; he again begins to go outside. If the sun is warm enough he has another exacerbation. When the regular winter sets in he recovers, he is more vigorous than in summer; his appetite is better and he takes on relatively more fat. By spring he is in condition for a more severe attack.

People who do not go out in the sun's heat or light have all the symptoms except

the dermatitis. They have an extreme bleaching of the skin over the entire body, face, and extremities, giving an anemic appearance, instead of the so-called pigmentation of those who go out in the sun. Anemia as a part of pellagra is not present in uncomplicated cases. The blood and hemoglobin are unaffected until some secondary condition arises.

In Roumania, where the Gypsy children go naked in the streets, we have a demonstration that the dermatitis occurs on all parts of the body, but most marked on the extremities. This shows that the agent in the tissue is not equally distributed over the body.

Bearing on this difference in the tissues, we have the statement of Lewkowitsch, who says that the liquid fats diminish in proportion as the position of the fat approaches the warmer parts of the body. As linolin is one of the most fluid fats, it would be deposited to the greatest extent first in the extremities. The dermatitis is not symmetrical except in symmetrical exposure.

Much space has been given to the foregoing symptom only because of its characteristic nature.

Some of the Other Symptoms

Other symptoms can be mentioned only in part here.

Any phenomena due to an irritated brain and spinal cord may be present: salivation; stomatitis, mild or extreme; diarrhea or constipation; increased or diminished appetite; stupor or mental excitement; localized or general neuritis; muscular rigidity or spasmodic contraction; various gastric disturbances.

These symptoms and others may appear in any large collection of cases. The variations are extreme, but when such factors as the nature of the cause and individuality are considered we have a full explanation.

It is only necessary to take into consideration the immediate and remote results of the poison. Apply the action of the poison in large and small doses, together with results of continuous and intermittent administration, to a normal or an already

diseased organism, and we can understand the multitudinous clinical features presented.

Diagnosis

For the sake of records, a diagnosis of pellagra should not be made without the history or presence of dermatitis appearing during hot weather. Patients who have indigestion, with weakness in the extremities, and nervousness, coming on in hot weather, and who have eaten linolin-foods in comparatively large amounts, should be treated as victims of pellagra.

It is often difficult to obtain a history of oil consumption. My investigations tend to show that it is necessary to introduce relatively large amounts of linolin into the body to produce the disease. In 200 consecutive cases the patients gave a history of eating cottonseed oil during not less than eight months. Now that the government has ruled that the label need not show the contents of the article offered for sale it will be more difficult to get at the facts.

Prognosis

Within certain limits the outlook is good. Except in cases where the functions of the stomach and bowels have been destroyed, the immediate results of treatment are always good. Where there is diarrhea as a result of permanent complete suspension of these functions the case is hopeless, and if any relief is obtained by the usual remedies for diarrhea it is only temporary. The other unfavorable feature of the disease is the change which takes place in the arteries, which may be general or localized. These changes consist in thickening and contraction, which conditions develop slowly and appear to resemble those following overmuch x-ray exposure.

If the assumption as to etiology here presented is correct, recurrence is prevented by excluding the oil from the diet or sending the patient to a cold climate. It is unfortunate that some of our renowned authorities are at present very active in asserting in the daily press that there is no cure for pellagra, and that when relieved it will return. One of the most discouraging duties a physician has to face is a hopeless

case. Those who have given up hope should not discourage others.

Treatment

Mild cases will recover without treatment when linolin is excluded from the diet and the patient is kept out of the sun. Because of this fact, many remedies have been credited with being effective. As indicated above, *sulphur is practically if not positively a specific*. Administered in absorbable form to saturation, together with proper attention to the impaired digestion, it will be effective in every case that has not passed the bounds of medical aid. *Calcium sulphide is the most effective form in which sulphur can be gotten into the blood*. It is best administered in 1-6-grain granules of reliable make, 3 every three hours or only three times a day, according to the severity of the attack. In rare cases, 10 or 15 granules have been most beneficial.

Where there is a deficiency of hydrochloric acid and enzymes in the gastric secretion hydrochloric acid and essence of pepsin are valuable. Dried sulphate of iron is beneficial as an astringent. Of all stimulants sparteine is most valuable. Others should be used continuously. Where constipation is present, castor oil is a satisfactory remedy. Paregoric may be given for attacks of pain and depression of respiration. Scanty action of kidneys and irritation in the bladder can be relieved by acetate of potassium. [We wish Dr. Mizell would try arbutin.—Ed.]

Insomnia may need relief, which is afforded by veronal in solution. Nausea and vomiting are relieved by solid food, broiled steak or chicken with dry toast; or a bit of chicken may be given every two hours. Water is to be restricted to 4 ounces at a time and allowed only with the nourishment. When the nausea and vomiting are relieved, gradually increase the nourishment and lengthen the interval between feedings.

During the active state of the dermatitis local applications are unnecessary and should be avoided. When desquamation begins the underlying skin may need protection from crusts, which may be kept soft by any nonirritating application. Neuritis in the feet and legs is temporarily relieved by poultices of epsom salt and flaxseed meal. Itching and burning are sometimes aggravating, and some relief may be had by bathing in strong salt solution or mild carbolic solution.

Bear in mind that no claim is made for sulphur as a curative agent further than that it stops the progress of the disease. It is like the water that puts out a fire that is burning a house: when the fire is quenched the supports and braces may be so badly damaged that the house, even though still standing, will fall with the first wind. A patient, after being cured of pellagra, may still be a proper subject for the neurologist, alienist, gastroenterologist, aurist, oculist or gynecologist—and then not become whole.

The Treatment of Pellagra

By E. H. BOWLING, B. S., M. D., Durham, North Carolina

PELLAGRA is the least understood of any of the great scourges of mankind. This seems remarkable when we think of the fact that it has been under the observation of some of the world's wisest physicians for more than one hundred years. It has been the great scourge of some of the countries which boast of the world's most ancient civilizations, and still we are at sea as to its cause, its nature, and its cure.

In the southern states sporadic cases have been reported for the last six or seven years. The first time I saw a case was in the summer of 1905. I did not realize its true nature, nor did my consulting brethren, until years after the patient had died. In 1910 we had, I judge, fifty cases in our city, and this year we have had, according to various estimates, from one-hundred and fifty to two hundred. I have treated during this summer thirty-one victims, and

these, with twelve cases I treated last year, have given me opportunities to make some observations of the disease, leading to conclusions different from the usually accepted theories.

I do not believe that pellagra is contagious. I have seen numbers of instances where there were two or more victims in the same family; I believe, however, they all became infected from the same source, and not that they contracted the disease, one from the other, by contact. I believe pellagra is infectious like typhoid fever, and, further, that a pellagrin is a focus of infection for the community in which he lives.

The first pellagra patient I saw (six years ago, as stated above,) lived in one of the factory settlements of this city; the next one encountered (two years ago) was in the same neighborhood; and within a radius of a few hundred yards, I am confident, there have occurred between thirty and fifty cases of the disease—more than in any similar area in this city. This was not primarily an unhealthy location; the people are rather above than on a level with the factory settlements of the city. Most of these people own their own homes, and they live as well as the average well-to-do families.

I cannot agree with most of the accepted authorities as to the cause of pellagra. I do not believe that injured corn or its products act as a causative agent. If people eat injured corn, I think it would cause an acute sickness rather than a chronic ailment. My observation has been that persons eating injured or defective grain-foods suffer from an acute intoxication—what we might call a grain-ptomaine poisoning, as the condition acts very much like a ptomaine poisoning. I can not admit that the corn contains pathogenic organisms, for the cooking process, to which it is always subjected, would kill these bodies, and so we could only get those injurious effects resulting from the altered condition of the grain constituents as brought about by the organisms. I believe if these organisms caused any sickness, this would be in an acute form only.

I cannot accept the sand-fly and buffalo-gnat theory, because, if we have those

insects in this community, they are not known to exist. They can, I think, safely be eliminated as a causative factor in the spread of the disease.

I believe that pellagra is caused by some pathogenic germ that possibly has not yet been isolated; that this germ gets into the stomach; and if the stomach is not in a normal condition it finds lodgment in the digestive tract and starts up the disease.

Pellagra of Gastrointestinal Origin

It is plain from the above that I believe that pellagra is primarily a gastrointestinal disease, the nervous and mental symptoms following in its train. It seems to me that, having an entirely erroneous idea about the cause of the disease, our treatment has necessarily thus far been unsatisfactory.

The first symptom usually seen, or rather the first symptom that usually directs our diagnosis, is the rash that appears simultaneously on both hands and arms. We may jump to the conclusion that it is a skin disease and begin to give arsenic and prescribe various ointments and lotions to cure the skin eruption, and when this gets better, as it will usually do in the first attack, without any treatment, we congratulate ourselves that we have effected a cure and pay no further attention to it. Meantime, the disease gets in its terrible ravages in the system for another year, and when it breaks out the next year the condition is so far advanced, such changes in the nervous system have been brought about, that the case is hopeless. We might with equal propriety poultice a general anasarca and neglect to treat the diseased kidneys and other conditions that are the cause of it.

Diagnostic Symptoms

In every case when we find the eruption we may know that this is a distress-signal hung out by a system surcharged with toxins, showing that the disease has raged in the body for a year or longer. Then, if we make careful inquiry, we shall find all the symptoms of gastrointestinal irritation dating back one, two or possibly three years. The first symptom, on account of which

we are usually consulted, is an obstinate sore mouth that does not yield to the ordinary remedies. Possibly the rash has not made its appearance, and if it has, the patient nearly always can give some cause, such as sunburn; or if it is a woman, the trouble usually is attributed to some certain kind of soap she has been using, and many a time such a patient will not accept the physician's diagnosis and may even discharge him if he persists in his diagnosis of pellagra.

The diarrhea spoken of by most observers I have not found to be a constant symptom; in fact, a majority of my patients have been rather constipated than otherwise, and my observation has been that when there is diarrhea, vaginitis or other evidence of inflammation of the mucous surfaces, loose bowels are an ugly symptom, and indicate that the system is charged with the poison and every eliminative organ is doing its best to rid the body of the noxious toxins.

We can very often diagnose a case of pellagra before the eruption takes place. The evidence of indigestion, the flatus in the bowels, the gastric catarrh, the fulness in the head, sometimes giddiness, often double vision, increased patellar reflex, and, especially, the increased motility of the stomach, often hyperesthesia of the skin (which sometimes amounts to an intolerable burning), are all suspicious symptoms and in a community where pellagra is rife will, I think, always justify us in a suspicion that the patient has pellagra and warrant us in beginning treatment for that disease.

The patellar reflex, in these cases, is always exaggerated in the first stage, and as the disease advances we find that it grows less and less until entirely absent. The motility of the stomach is always increased in the first stage, so that, when we give a test meal and after an hour withdraw the stomach-contents, we shall get nothing but a little glairy mucus. However, as the disease advances, we find the opposite condition setting in; while in advanced cases we find gastric retention, so that, when we give a test breakfast and withdraw the contents, we may get

the debris of the supper of the night before.

Absence of Hydrochloric Acid in Stomach

The absence of hydrochloric acid in the stomach is a constant symptom. I have never seen a case far advanced where there was a trace of hydrochloric acid. This has been such a constant condition that I now look upon it as a very valuable diagnostic symptom.

Next, after the gastrointestinal, we notice the nervous symptoms. Most patients with beginning pellagra show depression, deficient memory, apprehension, and have spells of vertigo. But when the disease has advanced to the eruptive stage, the patient usually has the delusion that it is not pellagra, but attributes it to sunburn, the use of poor soap, or to other causes, and will insist on some ointment or other local treatment for the eruption. For the past year I have had a nervous old hypochondriac making regular visits to my office, each time having a new complaint, as he owned some work on medicine which he studied most assiduously, the list of his diseases ranging from nasal catarrh to diabetes mellitus, while pulmonary tuberculosis was a regular old standby that could always be called into commission.

The Typical Skin Eruption

In July the typical pellagra lesions appeared on the backs of both hands. The patient did not even call my attention to it, but I began to make inquiries about it and found that this was the third year of the eruption. He even presented arguments to convince me that it was not pellagra. I insisted on my diagnosis and finally persuaded him to go to the hospital, when the blood examination showed only 70 percent hemoglobin and hydrochloric acid entirely absent from the stomach. This made the diagnosis absolutely certain, even had I entertained any doubts before. I assured the man positively that he had pellagra, but with all this he would not believe he had the disease and would not stay in the hospital longer than three days. He afterwards decided that possibly I might be right, returned to the hospital, stayed ten

days and, as I thought, was progressing finely, when he suddenly developed cerebro-spinal meningitis and died in thirty-six hours. I recite this case to show a tendency that I have often noticed. I used all my persuasive powers to convince the old man that he did not have all the other diseases suspected, but failed to persuade him he had pellagra.

The progressive loss of hemoglobin I have found to be another constant symptom. With the appearance of the eruption, I find the hemoglobin to be from 80 to 90 percent; as the disease advances, I find that the hemoglobin goes down and down; when it reaches 60 to 70 percent, if the patient is a woman, I find she always develops typical hysteria; when it gets to 50 percent, whether in man or woman, the victim, without exception, becomes insane; finally, when it gets much below 50 percent, death ensues. The white blood-cells stay about normal. In all my experience I have seen only one instance of leukocytosis.

According to my observation, the eruption, or rash, is the beginning of the second stage in the disease. I think the "germ" finds lodgment in the stomach and sets up a catarrhal gastritis, and this increases the motility of the stomach as well as interferes with the proper digestion of the food. The food is forced prematurely into the alimentary canal in an improperly prepared condition, there to be acted upon by the bile, pancreatic juice, and the other intestinal secretions, the whole a fermenting mass and a propitious feeding-ground for all the pathogenic germs that may be found in the intestinal tract. This mass, instead of forming wholesome chyle for the proper nourishment of the body, generates toxins, ptomaines, and all the host of deleterious substances capable of poisoning the body. These are absorbed and poured into the blood current.

In the face of this invasion, the liver makes heroic efforts to detoxicate the blood, but it is finally borne down by the accumulated load of poisons and allows the whole poisonous mess to go freely circulating in the blood current. We now find the nervous system staggering under the increased irritation, and at last nature

hangs out the red flag of danger in the rash we see upon the hands and arms. Just why this irritation always selects the gyrus centralis anterior in the frontal lobe of the brain I am unable to explain by any theory. As to why the rash will disappear, to reappear next year in a more aggravated form, I also am free to confess my ignorance; that these things happen, though, is a fact patent to every observer.

From the stage of irritation the next step is sclerosis, and then we have the interference with motion, the staggering gait, the inability to stand erect with the eyes closed, and other evidences of a sclerotic condition of the motor area of the brain.

The Author's Line of Treatment

For the sake of some country doctor who is far from any drugstore, I will say that, in emergencies, I have made many gallons of the following extemporized chlorine water:

Put 40 grains of chlorate of potassium into an 8-ounce bottle, then pour on the chlorate 2 drams of hydrochloric acid and let the chemical action begin, so that the yellow chlorine gas is beginning to escape. Now add about 2 ounces of water, let stand for about half an hour, then fill the bottle with water and you have a very good article. This I employ as a gargle and internally.

In connection with the chlorine water, I usually give calcium sulphide, 1 grain three times a day.

In a very few instances I have found the gastric irritation so acute that the chlorine water seemed to irritate. When this happens, I put the patient on the following, until he can bear the chlorine water: Fluid extract of condurango, 1 ounce; listerine, 1 1-2 ounces; liquor of potassium arsenite, 3 drams; carapetic liquid, enough to make 4 ounces. Directions: One teaspoonful in water three times a day before each meal.

This treatment I have found all that was required in those cases that were of comparatively recent origin, when the nervous system was not badly involved and the hemoglobin has not got too low.

In cases of longer standing or where the changes in the nervous system have been

decided, this treatment alone will not suffice, because the whole system is staggering under the load of accumulated poisons and it cannot throw off all that it contains; and even though we stop the formation of any more, the system can not take care of what it already contains. Under these circumstances, I try to assist nature in its efforts at elimination by the use of hypodermoclysis and stomach lavage. I usually give, by hypodermoclysis, from one to 4 pints of normal salt solution once or twice a day, the quantity depending upon the state of the patient. The stomach is thoroughly washed out every other day.

When by these means I have thoroughly eliminated the poisons and feel that I have stopped their formation in the stomach and intestines, then I try to restore the hemoglobin to the blood and the hydrochloric acid to the stomach.

My favorite prescription for this purpose is as follows: Potassium nitrate, 1 dram; ferrous sulphate, 1 dram; nitrohydrochloric acid, 6 drams. Warm the mixture slightly, let it thoroughly digest, then add 2 drams of liquor of potassium arsenite. Directions: Take 6 drops in water after each meal. By giving the acid after meals, we stimulate the flow of acid in the stomach.

A certain number of patients cannot take the acid treatment; in which case I give an alkali before meals, also with the object of augmenting the secretion of normal acid, and I favor a combination like this: potassium bitartrate, 2 drams; lithium citrate, 1 dram; elixir maltopepsin, sufficient to make 4 ounces. Directions: Take one teaspoonful in water three times a day before each meal. This mixture will sometimes act more favorably than the acid.

When we have rid the system of the poison and stopped its formation in the gastrointestinal tract, the after-treatment is a matter of individual choice. I usually give some preparation of iron, combined with bitter tonics; also codliver oil.

Now, does this procedure cure? In a majority of cases, yes! In cases not too far advanced, when the changes wrought on the nervous system are not too pronounced, it will cure at least 75 percent.

Last year I treated twelve patients, two of whom died, while four strayed off into the hands of other doctors or moved away—anyway, I lost sight of them. Six got well. Of these six, one had a stroke of paralysis in January, 1911, and died the same day. One has had a slight relapse, but it yielded very nicely to my treatment, and the other four remain well to this day, showing not the slightest return of the disease.

This year I have treated thirty-one pellagra patients. Of these four died, four strayed away, twelve have been discharged with all appearances of being cured, ten are still under treatment but with every indication of getting well, one is under treatment but not improving. Of these four that died, three came into my hands in the last stages, when their cases had been pronounced hopeless by other doctors.

I do not believe the treatment is perfect, but it is given to the world with the hope that it may be a sign-post to other men, and that they will push the investigation further, so that we may eventually discover the true cause and a sure treatment for this disease.

I wish, in closing, to acknowledge my indebtedness to Mr. Geo. W. Watts, a philanthropist of our city who built and equipped the beautiful Watts Hospital at a cost of more than half a million dollars, and without which these investigations would have been impossible.

To Dr. Joseph Graham of our city I am indebted for the idea of hypodermoclysis. He was, I think, the first man ever to employ this method in the treatment of this malady.

To Dr. T. C. Kerns, resident physician at the Watts Hospital, I am deeply indebted for his untiring efforts in making the blood counts, estimating percentage of hemoglobin, and testing for gastric hydrochloric acid. Without his aid I could never have made these tests so thorough.

For the present I am done. Next year I hope to add still another mite to our knowledge of the malady. This year, and last, it has been a groping in the dark. I could not believe the accepted theories, and my own had to be proved out, by hard work. I hope I have added a little to our stock of knowledge. If I have, I am content.

Sexual Impotence in the Male

Its Causes and Treatment

By WILLIAM J. ROBINSON, M. D., New York

Editor of "The Critic and Guide," "The Medical Review of Reviews," and "The American Journal of Urology"; Author of "Never-Told Tales," etc.

I HAVE never subscribed fully to the Latin maxim, *Qui bene diagnoscit bene curat*—he who diagnoses well, cures well. For unfortunately there are only too many cases where the diagnosis is perfectly obvious, while the method of treatment leaves very much to be desired. Nevertheless none will dispute the statement that of two men equally proficient in treatment, the better diagnostician will have the larger percentage of successes.

Probably in no class of cases is the ascertainment of the underlying cause of the trouble so important as it is in the sad affliction which is designated as sexual impotence.

Knowledge of the Cause Is Half the Battle

Very often the mere finding of the cause is more than half of the battle won. The causes being very numerous and complex, great patience and judgment are required in taking the patient's history, and in no other class of diseases is the patient's complete confidence so absolutely necessary as it is here. And without it we are often helpless.

The causes of impotence being, as stated above, very numerous, we shall have to be rather concise in their discussion. They are, more or less in the order of their importance, as follows:

Masturbation.—This is a very common cause, because, as I have stated elsewhere, practically every human male begins his sexual life with masturbation. And while the habit if commenced *fairly late* and practised *moderately* in the majority of cases leaves no ill effects, there is no question that if commenced at the age of ten, twelve or fourteen and indulged in *immoderately*, it may, and usually does, lead to relative or complete impotence, temporary or permanent.

Pollutions.—What we said about masturbation applies with equal force to pollutions. Pollutions of moderate frequency are harmless. But if frequently repeated and of long standing they may ultimately lead to impotence.

Spermatorrhea.—We do not meet frequently with cases of true spermatorrhea, but when we do, we generally also have to deal with relative or complete impotence.

Prostatic Congestion.—An inflamed or congested prostate may be the cause of impotence, but not invariably so. On the contrary, in some cases an inflamed and irritable prostate may lead to an increased *libido sexualis*, and apparently also to more vigorous erections.

Urethral Congestion.—Congestion of the prostatic urethra is a frequent and well-established cause of sexual impotence. The hypersensitiveness of the urethral mucous membrane is sometimes exquisite and renders an erection impossible or imperfect and ejaculation premature. The most common cause of such urethral congestion is a severe chronic gonorrhea. And thus gonorrhea, besides causing suffering and death among women, blindness among the newborn, sterility in men and women, is also the cause of one of the most distressing afflictions of the male sex—impotence.

Age.—This is, of course, a very important factor, for all men become impotent if they only live long enough. But if we attempt to answer the question, At what age do men become impotent, at what age is impotence physiological, normal? we find we cannot do so; for, in the sexual sphere more, perhaps, than anywhere else, is each man a law unto himself.

In many men the sexual power begins to decline at the age of 40 and becomes extinguished at the age of 50. Many men

are just as powerful at 50 and 55 as they were at 30, while not an insignificant percentage remains perfectly potent and ardent at the age of 65, 75, and later. I have had a patient who had his first gonorrhea at the age of 68! Since the death of his wife, three years previously, he had been indulging in masturbation and illicit intercourse. He wanted to be cured of his gonorrhea, because he decided to get married. He assured me that, not only could he indulge in intercourse nightly, but that the desire to do so was very great—irresistible.

There is also a class of cases which I have not seen referred to anywhere, but which are interesting from a physiologic point of view. I refer to men who become sexually stronger after the age of 40 or so. I have known several men who assured me with absolute positiveness that their sexual power—duration of the erection, ability to repeat the act—was considerably stronger at 45 than at 35 or at any previous age.

Sexual Excess.—Sexual excess may *per se* be a cause of impotence. Every physician who has sexual diseases to treat can testify to that. I have now the following case under treatment: Patient, X. Y., 25 years old, in perfect health in every respect. Led a model life. He masturbated only moderately for a period of three or four years; suffered with occasional pollutions (about once a month). Had had no intercourse until his marriage, six months ago. Indulged immoderately, six to eight times in twenty-four hours. After two months of this honeymoon orgy he began to notice a decline both in libido and in strength and duration of erections. But instead of giving his system a rest, he kept right up, incited to the excesses by his wife. In another month he lost all desire and was unable to get an erection. Apparently both the erection and the ejaculation centers were completely exhausted.

Fortunately in almost all such cases the impotence is only temporary, though the former vigor may never be regained. As a rule complete sexual rest, with proper tonic treatment, brings about the desired result. But while this is true of adults, it is not true when the victims of sexual excess are

boys. In them the impotence may become permanent. I know of cases of very young boys (eight, ten, twelve, and fourteen) who had been seduced by vicious servant maids and nurses and forced to perform the act the best they could several times a day. Some of those victims never recovered, remaining impotent for life.

Nothing injures the sexual apparatus so much as its premature abuse. The excess that will in the adult cause but little or only temporary damage will in boys cause terrible and sometimes permanent havoc.

Despite Contrary Assertion, Continued Continence Is Harmful

Sexual Abstinence.—I am firmly convinced that continued complete abstinence from any sexual gratification may result in partial or complete, temporary or permanent, impotence. I am well aware of the fact that some physicians deny this possibility. I am also aware of the fact that some societies have even passed resolutions to the effect that intercourse was unnecessary to perfect health. But to this I will reply that one positive testimony counts for more than one hundred negative testimonies. If a hundred physicians have not seen any impotence resulting from abstinence, then it is their good luck or their misfortune. It may be simply an accident in their practice, and their testimony cannot go far in comparison with the testimony of physicians who *have seen* cases of impotence for which they could find no other etiologic factor than that of abstinence. I could give several cases from my practice, but two will suffice.

Case I is that of a physician 35 years of age. He practised intercourse moderately between the ages of 18 and 24, and his sexual power was normal. At the latter age fear of venereal infection, mixed with suddenly arisen moral scruples, determined him not to indulge any more until he married. The struggle to overcome his desire was a hard one, but became gradually easier. He would have occasional emissions accompanied with strong erections; but gradually the latter became weaker and the former rarer, until sexual matters almost completely ceased to bother him.

If he had a desire or if a lascivious picture presented itself to his mind, he suppressed it ruthlessly by a strong effort of the will. At the age of 34 he became acquainted with a young lady whom he was very anxious to marry. But before broaching the subject at all he decided to test his virility. The test resulted in complete failure. He made several attempts with public and semipublic women, but in each case he failed miserably. He could neither get up a desire nor an erection. He is improving under energetic treatment, but it is questionable whether he will ever regain his full vigor, for both the penis and testicles show quite some atrophy.

Case II is that of a drug manufacturer, 38 years of age. He is not only a pious but a sincerely religious man, and he considered extramarital intercourse a heinous sin. His passions were very strong, but he never masturbated; he suffered from moderate pollutions accompanied with powerful erections. The erections became gradually weaker, but the pollutions did not increase in frequency. At the age of 38 he decided to get married and came to consult me as to his virility. The sexual organs showed no abnormality, no atrophy. I told him that in a case like his, where he had had no erection, practically, for years, it was a risky matter to pronounce an opinion and that a positive decision could be arrived at by a test only. This, of course, a religious man such as he could not think of doing. He married, and another terrible domestic tragedy (the wife is only 24) has been added to the already fearfully long list. He is completely impotent so far as performance is concerned, though he is not lacking in desire.

Nature does not allow us to trifle with her. She does not permit any organ to remain inactive, any function to lie fallow for years without meting out punishment: the organ atrophies more or less and the function is destroyed.

Those Society Resolutions

As to those resolutions passed by some societies to the effect that intercourse is unnecessary and abstinence perfectly harmless, I regret to say that all such resolutions

have so far been passed by societies that are tinged or fully impregnated with religious or moral bias. They have not been passed by calm, scientific investigators; they have been passed by good but rather narrow men and women, with a certain object in view, for a certain purpose. That purpose has been to decrease the immorality of licentiousness, that is to say, the sin of illicit intercourse, and to guard the young men from the dangers of venereal disease. But while the purpose, being both moral and hygienic in character, is a laudable one, I maintain that the statement that intercourse is entirely unnecessary for one's perfect health (note that some of the resolutions have it that *illicit* intercourse is unnecessary—just as if nature made a difference between licit and illicit, between legal and illegal) is a falsehood, and that moralists and theologians have no right to sail in the garb of unbiased scientists.

As to the danger of venereal disease, it is a reality and the contraction of venereal disease is a great misfortune. But I will here repeat the words of a physician friend, words which I do not subscribe to, but which give some food for thought. Said this physician friend: "I would rather have our young men run the risk of venereal infection than have them become confirmed masturbators and impotent." These words acquire special weight nowadays, when the venereal prophylactics in our possession reduce the danger of venereal infection to nothing, or to a negligible quantity.

And I will add this: A wife can be protected against her husband who has had a gonorrhea; nothing can be done for her with a husband who is permanently impotent.

Coitus Interruptus vel Reservatus.—The abominable practice of withdrawal or interrupting coitus just when an ejaculation is about to take place and when both parties are at the highest point of tension is one of the poisonous fruits of our modern civilization. Though not unknown in ancient times, and even mentioned in the Bible, it is only within the last quarter of a century or so that it has come into widespread use. The modern husband and wife,

deeply feeling the responsibility of bringing into the world more children than they can properly bring up, frequently make use of some method of prevention of conception. But this method, besides being unsafe, that is to say, uncertain, is one of the most injurious methods imaginable. It is responsible for the numberless cases of melancholia and neurasthenia and is an undoubted cause of impotence. As a rule the impotence is only partial, expressing itself in imperfect erections, in premature ejaculations; but so far as libido is concerned, it may be completely absent. In fact, the man may develop a disgust for intercourse.

In this connection a word may be said about condoms. Their use sometimes is injurious so far as libido is concerned, but the cases in which they affect virility are very rare. So far as ejaculations are concerned, they are usually retarded rather than accelerated.

Psychic Impotency

Marital Dislike.—It is a sad fact to chronicle, but being a fact it *must* be chronicled. Certain cases of impotence are due exclusively to the man's dislike for or indifference to his wife. And the impotence makes itself evident only toward the wife; with other women the man may be perfectly potent. If such cases were frequent, monogamy as an institution would have a hard time of it. Fortunately "marital impotence" is rather rare.

Drugs.—A number of drugs are reputed to have a ruinous effect on man's sexual power and to lead ultimately to impotence. Those drugs are opium and morphine, cocaine, arsenic, tobacco, chloral, the bromides, and potassium nitrate. There is one drug that I have not seen mentioned anywhere, but of whose power to cause, ultimately, sexual debility I am firmly convinced. That drug, strange as it may seem, is strychnine. I myself hesitated to accept this drug into the category of sexual depressants, but several facts left me no choice. I have treated a number of patients who were given by their former physicians strychnine for sexual weakness; and in a very large percentage of cases the

story told was the same. At first, on taking the medicine, they felt better and stronger; the erections were firmer and the desire was more frequent, but on continuing the use of the drug and perhaps increasing the dose, the condition became worse. This history was given by too many patients to be accounted for merely as a coincidence.

In medicine we must be very careful not to mistake *post hoc* for *propter hoc*, not to confound a sequence with a consequence, still, when we see the same phenomenon repeated in a number of cases we have a right to draw tentative conclusions, at least. As strychnine may do great harm in paralysis, so it may do injury in sexual debility; by irritating the already irritated erection- and ejaculation-centers, it causes their exhaustion and thus makes bad matters worse.

As to tobacco, I cannot speak from personal knowledge. The statement is generally made that excessive use of tobacco causes sexual impotence. I have not seen such instances; I have seen excessive smokers who were impotent, but in them the excessive consumption of tobacco went hand in hand with the excessive consumption of alcohol, and so it was impossible to decide which agent was more to blame. Morphine and cocaine in small doses stimulate the sexual desire, but that chronic morphinists and cocaineists are impotent is well known. The same is probably true of the habitual use of cannabis indica.

As to the injurious effects of the bromides, particularly potassium bromide, I have seen some very sad cases. Some high-minded young men, considering extra-marital intercourse morally wrong, decided to repress their sexual desires by the use of potassium bromide. At the advice of a young physician, they took 30 to 60 grains (2 to 4 Grams) every night for a period of several months. Two of the young men kept up the bromide, with some intermissions, for over two years. They all succeeded in repressing, in suppressing their desires. But, unfortunately, they also succeeded in several other things: they succeeded in ruining their digestion,

in getting a nice crop of bromide-acne that was very resistant to treatment, and in becoming impotent. Fortunately I succeeded in restoring their potency to a greater or lesser extent, but one is still under treatment and there is a possibility that his

deplorable condition may be permanent. In that case this conscientious finé young fellow will, of course, give up the girl he loves and will have to vow himself to lifelong celibacy.

[To be concluded.]

The General Practitioner as a Gynecologist

Everyday Helps for Routine Work

By GEORGE H. CANDLER, M. D., Chicago, Illinois

III

GONORRHEAL vulvitis is unquestionably the variety of vulvar inflammation is most frequently encountered. In nine cases out of ten, various more or less troublesome complications will arise, and require careful attention.

It is not always possible to determine the initial point of infection; occasionally the urethra and vagina will be involved before the vulva; again, these parts will be the first to be affected; or the vagina, urethra and vulva may be invaded at the same time. A woman with a simple catarrhal vulvitis offers a specially favorable soil for the propagation of the Neisser bacillus, and, until the infection spreads or the glands of Bartholin become involved, she is apt to attribute any added discomfort to an exacerbation of the old-standing disorder, and hence delay visiting her physician. As a matter of fact the symptoms of an uncomplicated gonorrheal vulvitis, though more pronounced, are not easily distinguishable from those which are present in the nonspecific form.

The Rapid Spread of Gonorrheal Inflammation

The resultant conditions, however, are serious enough, the infection spreading within a few days to the ducts and glands, meatus and vagina, later still, perhaps, if neglected, to the uterus, tubes and peritoneum. Not infrequently the Bartholinian and inguinal glands are involved early. A woman complaining of stinging and burning upon urination, with soreness of the vulva and

tenderness in the groin, will almost invariably be found suffering from gonorrhea. The secretions should be examined and the indicated treatment instituted at the earliest possible moment.

The physician should make a very guarded prognosis, especially when the infection is extensive, for once the pelvic organs are involved it is impossible to foretell the outcome. Long years of suffering or invalidism, sterility, the loss of one or both ovaries, or of the uterus and adnexa may follow a "simple gonorrhea." The latent form of this disorder must not be overlooked and no woman should be discharged as "cured" until all the secretions have been repeatedly examined microscopically and found normal.

The Early Treatment

When the vulva alone is involved the treatment, while energetic, is comparatively simple; when a vaginitis or urethritis co-exists the procedure to be followed is more complicated. The primary essential is, of course, to destroy the gonococci and prevent extension of the infection. Great care must be taken to prevent the infected secretions from entering the vagina.

The vulva is first cleansed *thoroughly*, with a 1 in 2000 bichloride solution, a 25-percent argyrol or 2-percent solution of protargol. The vagina is then douched with two or three quarts of the bichloride solution, followed by a quart of normal saline solution. Then a cotton-wrapped applicator is dipped in a glass containing the argyrol or protargol solution, and the labia are swabbed over two or three times.

A thin pad of cotton, covered with sterile (or medicated) gauze, is then dusted thoroughly with xeroform and boric acid (in the proportion of 1 to 4); this is inserted between the labia and brought in contact with the entire vulvar surface.

I have been in the habit of inserting two or three candle drainage bougies into the vagina just before applying the pad, leaving the wick ends to protrude from the vulva and covering them with a pad of well-dusted cotton. In this way the vaginal mucosa is medicated continuously, and the melting bougie bathes the introitus and inner surfaces of the vulva with a bactericide. The vulvar dressing must be changed several times daily (always after urination) and the "T" bandage used to keep the pad in position. This should be discarded the moment it becomes soiled. A strip of three-inch gauze bandage serves excellently, and it is economical.

Treatment of the "Subsiding" Stage

As soon as the acute symptoms subside the affected area may be painted every third day with a silver-nitrate solution (25 grains to the ounce). The douches must be continued. At this stage I find invaluable an ointment of thuja, mercury bichloride and methylene-blue in lanolin and vaseline. Indeed, my last ten cases have been treated almost entirely with the douches and this combination: a solution of the three drugs being applied in place of the protargol or argyrol, and the ointment replacing the dusting powder. Under the treatment outlined I feel sure that results are secured more rapidly and in no instance has the infection extended. When the vagina is involved a thorough douching, followed by the application of the thuja, mercury bichloride and methylene-blue solution (1 in 500), and the insertion of two or three drainage bougies, is unquestionably the ideal treatment.

The patient must be warned of the staining qualities of the solution and should protect her underwear. Soaking in cold water will remove the stains, but soap should not be applied until discoloration has disappeared.

All clothes coming in contact with the parts *must be boiled*. The patient should be impressed with the necessity for disinfecting her hands, syringe nozzles, and other things which come in contact with the discharges, after each treatment. She should not use the family toilet or, if she does, should protect the seat. She should also have a separate towel.

Internal Treatment of Gonorrhea

The internal treatment is important. The most effective remedies are formin, arbutin, calcium sulphide, calomel with podophyllin, and laxative salines. The bowels *must* be kept active and pelvic congestion thus reduced. I usually order calomel, gr. 1-6, and podophyllin, gr. 1-12, half hourly for four to six doses every third evening, and phenolphthalein with sulphur and licorice extract at bedtime on other nights. A saline draught is taken each morning on rising. Every two hours the patient takes 1-6 grain of calcium sulphide and 1-3 grain of arbutin, with a little barley water, and three times a day a tablet containing formin, lithium carbonate and sodium benzoate. If the urethra is involved methylene-blue must be added.

Not infrequently the sulphocarbolates may be given advantageously. They are distinctly indicated if the urine contains indican and skatol and is abnormally acid. Small doses of gelseminine relieve the pain; hyoscyamine the nervous irritability. Occasionally scutellarin and cypripedin, in 1-2 grain doses, prove the best sedatives.

Inflammation of Bartholin's Glands

Should the glands of Bartholin be involved, the patient must be kept in bed, and hot, moist antiseptic compresses applied. Not infrequently the pain is severe enough to require the use of morphine. The mild hyoscine, morphine and cactin combination is preferable in every way to morphine alone.

The swelling is sometimes extensive—even the tissues about the anus being affected—and an angry, red areola will be observed to surround the mouth of the duct. The overlying skin is immovable. Pus formation is first apparent upon the inner side of the affected labium, and a free

opening should be made here early, care being taken to avoid the vulvovaginal bulb which lies just above the gland. With a small sharp curette or ear-spoon, scrape out the interior of the diseased gland and then irrigate the cavity with an antiseptic solution—as mercury bichloride, 1 in 2000, chinolol or thuja. Dry, touch with pure carbolic acid, neutralize with alcohol, dry again and pack with gauze saturated with eucal. If, after the use of carbolic acid, gauze saturated with echinacea is used as a packing, the prior use of alcohol is not required.

If the abscess is not found and treated it evacuates large quantities of pus through one or more openings, below the orifices, and the discharge usually contains gonococci. The fistulae remain long after the acute symptoms have disappeared, and not uncommonly communicate with small abscesses or with a large common cavity. A purulent greenish or opaque fluid oozes persistently from the sinuses and is a constant source of danger, not alone to the woman, but to the male cohabiting with her.

In a certain percentage of cases the inguinal glands are involved and suppurate. Should the physician not see the patient until the chronic stage exists he should dissect out the gland, curet the sinuses, apply pure carbolic acid to the affected tract, and then pack with gauze, securing healing by granulation. Rarely, primary union can be secured by very thorough excision of the tissues involved and the insertion of ten-day catgut sutures.

It must be remembered that the ducts sometimes become affected, without the glands themselves suffering. Such areas are, of course, the seat of latent gonorrhea. If the opening of the duct is inflamed and a drop of pus exudes upon pressure the gland should be dissected out, and the duct split throughout its length. The after-treatment has been described. A simple catarrhal infection yields readily as a rule, to the injection, through a blunt-pointed hypodermatic needle, of peroxide of hydrogen

and a subsequent instillation of thymol iodide in petrolatum, or a combination of thuja, one part; echinacea, one part; glycerin, one part, and water four parts.

The practitioner will do well to take no chances here; if a specific infection is present there is always a probability of an acute inflammation recurring, constant danger of infection of more important organs, and almost inevitable infection of the male consort.

Caution for the Young Physician

It may be well here to caution the young doctor not to tell his female patients the exact nature of the malady. While none of us have (or should have) the slightest sympathy with the loose-moralled man who carries the gonococcus home, we must remember that "to err is human." We are healers, not judges, and if by saying "You have, madam, a severe inflammation which requires very careful attention and necessitates temporary noncohabitation," we can save domestic turmoil—perhaps a divorce or even a tragedy—are we not justified in the reservation? Moreover, who can tell just where (or from whom) the gonococci came?

Should the patient prove insistent, tell her that inflammations of this character have various origins. Talk to her of the streptococcus, the staphylococcus, and other microorganisms, and assure her that cultures made from her secretions would undoubtedly reveal one or more varieties of these bacteria. It may be you will be asked to examine the husband. If you are, and find unmistakable evidence of guilt, insist upon a full understanding, and *treat* the man on days when the wife *does not* come to the office. But, while being "wise as the serpent," do not forget to do your full duty as a physician and before the patient's leave your hands try to have inculcated such moral precepts (and dread of consequences) that they will "go and sin no more!"

(To be continued.)



The Prophylaxis of Cancer of the Rectum*

By J. RAWSON PENNINGTON, M. D., Chicago, Illinois

Professor of Rectal Diseases in the Chicago Polyclinic

EDITORIAL NOTE.—In this important paper Dr. Pennington strongly emphasizes the importance of an early recognition of this disease on the part of the general practitioner. The article deserves the closest possible study.

I TAKE it we are all agreed as to the increasing frequency of cancer. At least it seems to me no other conclusion can be drawn from the following figures:

The Alarming Increase of Cancer

According to the 12th United States census, cancer appears to have increased to the extent of 12.1 deaths per 100,000 population in the previous decade. The recently issued Census Bulletin informs us that cancer increased from a total of 33,465 deaths in 1908 to 37,562 in 1909, and the death-rate increased from 74.3 to 77 per 100,000, the latter being the highest crude death-rate from the disease thus far recorded in the registration area of the United States. Moreover, the report continues, "the numerical increase in the deaths from cancer was not large for any particular state or city, but the most impressive feature is the widespread increase shared by all states and cities, with but few exceptions."

In Great Britain, so we learn from the book of Roger Williams, "The Natural History of Cancer," which—to use a somewhat overworked term—is a storehouse of facts, the deaths from cancer increased from 177 per million living in 1850, to 885 per million living in 1905.

Some authors claim the increase is apparent rather than real, and have explained it by various theories. The writer just mentioned disposes of the theories *seriatim*. The earliest objectors ascribed the increased mortality to mere increase in the number of persons living, but Williams points out that the futility of this is shown by the fact that, while the population barely doubled from 1850 to 1905, the mortality from cancer increased more

than sixfold. As regards the average age of the population having advanced, the answer is that in modern times the saving of life has been confined mainly to the pre-cancerous years.

Various writers claim the apparent increase to be the result of improved diagnosis and more careful death certification. The steady progressive increase during the long succession of years is too uniform, however, to corroborate this suggestion. Moreover, if improved diagnosis and death certification have caused additions to the total, which Williams does not deny, these very same conditions have lessened the number of alleged cancer deaths. As late as the year 1880 fibroid tumors, polypi, and lupus were classed with cancer.

Nor is the increase confined to the United States and Europe; it holds good also for Japan, India, and even for uncivilized countries. The belief current a few years ago that cancer is extremely rare in these latter regions proves, with increasing knowledge, to be unfounded. Renner, for instance, has recently called attention to the increase of cancer in his own time among the creoles of Sierra Leone, the British colony on the west coast of Africa. In short, cancer is one of several diseases which apparently is increasing by leaps and bounds in spite of our boasted progress in medicine, surgery, and hygiene. Its associates are insanity, together with other diseases of the nervous system as well as circulatory disorders.

Apart from its increased prevalence, the present death-rate from malignant disease is something dreadful to contemplate.

Some Cancer Statistics

Our anxiety in regard to malignant disease of the rectum is pardonable when we reflect that a good proportion of cancers

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involve this region. Williams collected 25,196 cases of carcinoma from the mortality returns of England and Wales, finding that 9.6 percent in males and 5.3 percent in females were located in the rectum. The preponderance of male victims is shown also in the United States census of 1900, namely, 5.4 percent as against 3.5 percent. In this connection, Williams points out that the disproportion between the sexes has been steadily lessening ever since 1850. At this time it was 1 to 2.2, while for 1901-5 it was 1 to 1.3. He believes, if this disproportionate increase among males is not arrested, the affection will soon be equally prevalent in the sexes, or the comparative proportions even reversed, as is the case in Australia and New Zealand. As is well known, the preponderance of deaths in the female sex from cancer is due to the frequency with which the mammae and uterus are involved. The corresponding organs in the male are rarely the seat of the disease, but for all other localities the male liability is the greater.

So much for statistics. With improved modes of living and sanitation, the black-death and the sweating-sickness have been extinguished, scurvy and leprosy have been practically stamped out in civilized communities, smallpox is robbed of all its terrors, the way to lessen malarial and yellow-fevers is pointed out, and some impression has been made upon the "great white plague"; yet cancer continues its fell ravages.

Is there anything that can be done to check this foe? Your speaker believes there is and that this Society may be made a powerful factor for good in such a crusade. In Germany a similar crusade has been started against cancer of the uterus by Winter. Agitating the subject both among the profession and the laity, it is estimated that the number of cases of inoperable cancer of this organ has been reduced over 30 percent as a result of calling attention to the early symptoms.

Ignorance as to Cause; Imperfect Diagnostic Methods

At the start we are confronted with the fact that the cause of cancer is still un-

known. Cohnheim's embryonal theory, Ruffer's "cancer parasites," Russell's "fuchsin-bodies," Sanfelice's blastomyces, Doyen's micrococcus neoformans, not one of these meets all the requirements from an etiologic standpoint. At present, while a dispassionate review would lead one to conclude that the parasitic theory is the most probable, still, for the time being, we are compelled to bring in the Scotch verdict of "not proven."

But if there is any one thing known about cancer, it is the fact that in the beginning it is a local affection; later, after it has invaded the lymphatics, it may be said to be a general disease.

How necessary, then, to be able to attack the disease in its early stages, if we are to do so with any hope of success. Here, again, we meet with another difficulty, the fact, namely, that we have at present no means of diagnosis save microscopic examination of portions of the growth. While the technical part of our art has well-nigh reached perfection, the diagnostic part limps along far in the rear. The various refinements of serodiagnosis have been tested in cancer, with negative results, as well as the blood-picture and the hemolysis test.

In the portion of the human economy with which we are especially occupied in this Society, the difficulties of diagnosis are increased by the fact of the disease commencing insidiously in a cavity of the body. It is well known, of course, that cancer *per se* gives rise to no distinctive symptoms. We are, however, better off in this respect than the internist who attempts to diagnose the presence of a gastric carcinoma or one in the small bowel; for in the rectum the disease is at least accessible to vision through the proctoscope.

Coming now to cancer of the rectum particularly—while Allingham recorded a case of columnar epithelioma at the age of 12, and various observers have seen the disease in other young patients, still, in general, it is a disease peculiar to middle and old age. Of 2914 cases of rectal cancer in the male referred to by Williams, 2592 patients were over 45, as well as 2180 of

2533 female patients. In the male sex, again, the average age at which the onset was noted was 49.7 years, the minimum being 16.75 and the maximum 74; while in the female sex the average was 50.4 years, with a minimum of 21.8 and a maximum of 88 years.

Rectal and Uterine Carcinoma in the Cancerous Age

This brings me at once to the crux of my argument: that every person who has reached the so-called "cancerous age" should be examined periodically for evidence of commencing carcinoma, not necessarily of the rectum alone, but, in the female for example, of the uterus also. However, confining ourselves to the former viscus, the necessity for this examination is shown by the figures set forth by our associate, Dr. Tuttle, in his book: Of 600 cases of rectal carcinoma, only 6.7 percent involved the anus; 26.3 percent were located in the infraperitoneal and 67 percent in the suprapraperitoneal region. In other words, the majority of the tumors were so situated that they would give rise to no early symptoms of the disease, and thus, by the time they caused phenomena marked enough to attract the patient's attention and lead him to consult the surgeon, the period for operation, with a reasonable expectation of permanent cure, has passed by. Neither the patient nor the practitioner should allow their interest in these periodic examinations to slacken.

An instance showing the necessity for long-continued inspections was recently narrated by Powers of Denver. In 1889 he assisted at an operation for removal of the breast in a woman of 42. The method used was the Volkmann excision and clearing out of the axillary contents. The growth was about the size of a small apple, and the nodes in the axilla were hyperplastic though not malignant. During the first year the patient was examined every three months, and in the second year every four months. After the second year careful examination of the scar was made every six months, yet there was no evidence of relapse until December, 1907, when a small hard mass was found and excised which

microscopic examination showed to be carcinoma.

Responsibility of the Family Physician

Here the responsibility of the family physician is great, for he is usually the first one to be consulted. We fear he, too, will need some instruction as well as the laity. He must not content himself (as in dozens of cases we can recall) with a perfunctory diagnosis of "piles," without even an inspection of the anal region, and an equally perfunctory prescription of gallic acid ointment or some similar agent. The bowel must be inspected through the proctoscope; and this involves the possession of an appropriate armamentarium, and in turn the ability to interpret the appearances seen through the instrument.

In cases of doubt, the patient's life is not to be jeopardized, but advantage taken of consultation with the specialist. There is no reason why the splendid record achieved in the past decade in the early recognition of appendicitis should not be repeated in the case of rectal carcinoma. The family physician no longer contents himself with a finding of "inflammation of the bowels" or "typhlitis," or the like, but forewarned, he appraises the symptoms at their true value and either operates himself or sends the patient to the surgeon in due time.

J. B. Murphy, in his paper on "Peritonitis—General, Free, Suppurative," writes as follows, which is pertinent to the phase under discussion: "The author wishes to thank the family physicians for reference of cases, and to congratulate them on their early diagnosis and for prompt demand for surgical relief in these cases; to them, he feels, belongs much of the credit for the good results secured," etc.

Once any suspicious appearance is detected during such a proctoscopic examination, effective measures are to be undertaken immediately. There must be no delay—one of the banes of the surgeon at the present time is the procrastinating family physician who keeps a patient under observation for weeks or months while he is making up his mind whether a swelling—in the breast, let us say—is malignant.

When finally he decides that it is and the patient is referred for operation, there frequently is, by this time, involvement of all the tributary lymph-nodes, general cachexia, and all the other developments—in other words, the golden opportunity has been allowed to slip by.

Prevention and Education

The subject of prevention of disease is one close to the hearts of the populace, as witness the propaganda of the American Medical Association, the activities of the state and municipal boards of health, and the flood of books and magazine articles treating of healthful living, the lessening of disease, and cognate topics. And here, it seems to me, is a great field for the activities of our own Society. Lectures should be delivered in language "understood of the people," calling their attention to the ravages of malignant disease, with special attention to the rectum, and the splendid results afforded by early and radical intervention. Moreover, tracts and articles should be written, in equally simple language, promulgating such data.

The laity must be warned of the dangerous popular custom which leads nearly everyone experiencing discomfort in the rectum to make his own diagnosis of "piles" and to apply his own therapeutics in the shape of one of the many so-called "pile cures" found on the market.

Nor are the people alone in this superficial view of the subject. In his paper describing the technic and results in 120 resections of the rectum for malignant disease, W. J. Mayo observes: "It is an unfortunate fact that, in the majority of cases, cancer of the rectum is not recognized in time to obtain a radical cure. When one considers that such tumors are, as a rule, within easy reach of the examining finger and may readily be inspected with the proctoscope, it indicates a lamentable carelessness on the part of the profession and gives point to the saying that most errors in diagnosis are due to careless examination rather than to lack of knowledge." Nearly 10 percent of the cases subjected at the Mayo hospital to resection had been recently operated on for piles or had been

subjected to a futile dilatation with bougies for supposed stricture.

Gynecologists tell us that from 65 to 80 percent of all cases of carcinoma of the uterus are inoperable when first seen by them, because the patients looked upon the leucorrhea and hemorrhage as "delayed change of life," irregular menstruation or something of the sort.

In the same way, the public must be warned of the insidious onset of rectal carcinoma, that passage of blood and mucus in an elderly individual means, in many instances, something infinitely more serious than hemorrhoids. People must be warned also of the necessity for adequate bowel movements, avoiding constipation with its attendant evil of irritation from retained feces.

Some of the Obstacles in the Way

Lord Bacon says there are four chief obstacles in the way of truth: "The plea of an authority that does not deserve the name, long-standing habit, popular prejudice, and an ingrained ignorance that masquerades as so much knowledge."

In the proposed crusade we shall probably have to deal largely with the third of these hindrances—popular prejudice. The average layman has had relatives or friends die of cancer and looks upon the disease as the equivalent of a death-warrant. If told he has cancer, he is prone to seek aid from various types of charlatans or nostrums. Many of these nostrums have been exposed lately in *The Journal of the American Medical Association*, and their composition shows that their use would be ludicrous, were it not for the pitiful aspect of the situation. As a last resort the surgeon is consulted, unfortunately too late for anything but palliative measures.

It is a most distressing characteristic of human nature that the very individuals one would least suspect—the leaders in their respective communities—are the ones to be led astray by the false gods of Eddyism, Dowieism, and the like. The keen business man, the clergyman, the lawyer or the judge are the ones carrying buckeyes, rheumatism rings or other ridiculous preventives.

The aversion to the knife so commonly seen is another strange failing. Before the days of anesthetics, when the struggling patient was held down by strong men and his shrieks unnerved the operator and alarmed the spectators, so only surgeons of iron will and determination could carry out operative treatment, one could understand this distrust of radical measures. But, with the refinements of anesthesia by modern methods (the drop-method of administering ether, and so on), when the subject loses consciousness, to awake with the diseased area ablated and nothing to testify to the operation save some pain and slight smarting during the period of wound repair, the fear of the knife in otherwise intelligent people is strange indeed.

All of us have seen instances of women with a tumor in the breast (sometimes no doubt of a benign nature), who have consulted some charlatan advertising that "no knife is used," and who have suffered the tortures of the damned for weeks and weeks after the use of Vienna paste or plasters or caustic "arrows" until at last the mammary gland sloughed away, leaving an enormous, ragged, stinking cavity. No knife, forsooth! Better the knife, I say, than every moment of existence, day and night, made hideous by such infernal procedures.

So the problem, as may be seen, is no small one. I said a moment ago that cancer in the beginning is a local disease. This granted, then early and thorough removal must lead to a cure. If success attends a good proportion of early removals for cancer in other portions of the body, then an equally gratifying success will attend intervention for rectal cancer carried out correspondingly early. In his paper already referred to, Mayo reports cases in which the operated individuals are alive and well now, five, nearly eight, and nearly nine years after operation.

The Role of Cicatrices and of Inflammatory Processes

This leads me to allude to another phase of the subject. It has been shown of late that a large proportion of malignant growths originate in scar-tissue. We owe to the

Mayo clinic the demonstration of this as well as many other invaluable facts. In cancer of the stomach, for example, these operators found, from microscopic examination, that no less than 62 percent of the victims showed evidence of a previous ulcer. In rectal cancer, patients frequently give a history of previous operations on the part. Does the cancer occur in the scar left from an operation for hemorrhoids done by one of the commoner methods—ligature, clamp and cautery, or some other technic leaving much scar-tissue and sometimes stricture? May it not occasionally be engrafted on the scar following the usual incision method of operating for fistula? All of us have seen large and ugly scars, from time to time, following this method.

Surgeons are bending all their efforts of late toward securing healing *per primam*, with linear cicatrices if possible. Here is a suggestion for us in our own work; secure smooth healing by resorting only to such procedures as leave the minimum of cicatricial tissue, hence the least-possible nidus for mischief in the future.

Along a similar line, J. B. Murphy, in the preface to his "Yearbook of Surgery," states that chronic infection of the tonsils, urinary apparatus, intestinal catarrhs, etc., are not sufficiently appreciated for their destructive, chronic, poisoning effects. Endarteritis, endo- and myocarditis, nephritis, etc., are the direct consequences of such infections. Heretofore we have been satisfied with diagnosing the secondary disease, failing to look for or to locate the etiologic factor, as well as neglecting to remove it. Dr. Murphy goes on to say that chronic infections must be eradicated, thus avoiding the baneful and incurable secondary disease. We must act on such advice by attacking the cancer in its pre-cancerous stage—to use a Hibernicism.

With the cooperation of the public, it seems to me, we should learn much about cancer in its early stages; diagnostic methods can be put to the crucial test; the technic will be improved; possibly the cause of the disease unearthed. To educate the public, we must—as has been well said—"organize, systematize, deputize, energize, supervise, and economize."

Ulcer of the Stomach and Intestines

Some Practical Considerations

By BOARDMAN REED, M. D., Alhambra, California

Author of "Diseases of the Stomach and Intestines"

EDITORIAL NOTE.—We like Dr. Reed's conservative position regarding alimentary-tract ulcers. He says: "Ulcer of the stomach or the duodenum is nearly always curable without surgery when treated early, properly, and persistently, for a sufficient time." But he does not minimize the dangers of neglect. This is our view exactly. Next month Dr. John Dill Robertson will tell us of the surgical viewpoint. Read both papers.

ULCER of either the stomach or the duodenum is nearly always curable without surgery when treated early, properly, and persistently for a sufficient time. When neglected till it becomes old and chronic, it is often fatal by hemorrhage, perforation or carcinomatous degeneration, despite medical and surgical endeavor.

In no disease is it more important to make the diagnosis early or at least to begin the proper treatment promptly, even on the mere suspicion of the presence of an ulcer. It is better, of course, to make a reasonably sure diagnosis, with or without the help of a specialist, before instituting treatment, as this enables the physician to persevere with the right measures without doubt or wavering until the cure has been well established.

But it is a striking fact that, while to treat ulcer for something else may easily prove a fatal mistake, to treat for ulcer a disease which later proves to be something else (such as simple dyspepsia, gallstones, crises of tabes, or even cancer) is not likely to do any permanent harm; and to treat hyperchlorhydria for ulcer is the very surest way to cure it speedily. Whenever there is acute pain in the abdomen coming on regularly either immediately or one to four hours after eating solid food, whether there is vomiting or not, or whether there is or is not tenderness on pressure, it is safe to try the ulcer treatment.

The most common mistake is the prescribing of hydrochloric acid, pepsin, or the like, or of some hot stimulating mixture for supposed ordinary indigestion; and it may be said that this always aggravates all the symptoms of ulcer so markedly that

patients generally refuse to continue it, even if not ordered stopped.

The correct treatment for ulcer, on the other hand, namely, rest in bed, with exclusive rectal feeding for at least one week, followed by a diet of milk, with a very gradual return to the ordinary meals; and, for medication, 30- to 40-grain doses of bismuth subcarbonate with 50- to 60-grain doses of bicarbonate of sodium or other equivalent alkali, in a tumbler of water, three or four times a day, will almost invariably bring immediate relief. And this relief generally is very positive and decided, except in some of the old chronic cases, and these may not yield to anything short of an operation. It is safer, then, to continue the milk diet a month or two and never let the patient return to the irrational habits which brought on the trouble originally, including eating too much meat—the meat extracts especially—and food highly seasoned with hot condiments.

It is proper to mention that in my own fairly large experience this line of treatment has almost never failed to bring gratifying results, still, Lenhartz, of Germany, has lately lauded a different diet in these cases, one which calls for a much larger amount of rich, stimulating proteids, including eggs and some meat. The value of such a variation of the dietetic treatment in some cases has been confirmed by careful observers in this country. The cases in which this method succeeded, after the other one failed, were probably some of the more chronic ones which had continued so long that the patients had become seriously reduced and debilitated, so that recuperation was possible only after a course of

unusually strengthening, building-up measures.

In these brief suggestions I am not attempting a full discussion of gastric and intestinal ulcer. This condition is treated of exhaustively in my work on gastrointestinal diseases¹ as well as in a half dozen or more other excellent books on the subject now published in English. Every honest physician who tries to keep abreast of the times and do the best possible for his patients is sure to possess one or more of these works and to consult them frequently. My main thought in this article is to call attention prominently to a few of the salient points only about a subject which

is certainly of very unusual importance.

I have not described here the differences between ulcer of the stomach and ulcer of the duodenum, because they are not marked and the differential diagnosis is often very difficult even for an expert; sometimes impossible. The treatment is substantially the same for both, the dietetic part being by far the most important. The medicines may be gradually withdrawn after ten days and the alkali much sooner—after two or three days—when there are no evidences, either as a result of an analysis of the stomach-contents or from a persistence or return of the burning pain, that too much hydrochloric acid is being secreted.

Physicians' Account and Record Systems

By H. J. ACHARD, M. D., Chicago, Illinois

EDITORIAL NOTE.—The author of this paper has, for many months, made a careful and detailed study of the principal physicians' account systems on the market and presents here the results of his investigations. The more simply and withal the more completely physicians' records are kept, the better will be the financial results. A number of the systems described are advertised in this journal, and we advise our readers to correspond with the firms supplying them if they contemplate investing in this direction.

II

An Excellent Loose-Leaf System

THE Keith Physician's Case Record and Account System is a loose-leaf system providing for daybook and ledger entries as well as for complete case records. The records are kept in a fire-proof steel cabinet which can be locked and "is provided with metal trays containing pockets in which are arranged metal index holders. Each one of these holders contains an index folder, and the index folders complete an approved alphabetical index for the filing of case records and accounts."

The blanks used in this system are carried in a leather pocket case with slits for four pads: visiting list, case record, accident record, prescription pad. The visiting list takes the place of the daybook, permitting the planning and recording of the day's work, and it also shows memoranda of the

debts and credits of the patients to be visited. Each day's work is transferred to the monthly cards on which the charges and receipts of day and month are recorded.

This is an important and valuable feature of this and the two other systems to be considered. It is not only necessary for the physician to plan his day's work in advance as far as is possible, but he should also have some ready means of determining for each day how many and which patients he saw, how much money he received, and how much he booked. The daily lists in these last three systems are convenient, easy to handle and easy to transfer to the monthly balance sheets.

The case-record sheets of the Keith system provide space for particulars concerning the patient and for the charge account, also for clinical data including diagnosis and treatment. The lower half of the slips is intended for the original prescription, the carbon copy to be given to the patient for filling. If a case re-

¹"Diseases of the Stomach and Intestines." E. B. Treat & Co, 241-3 W. 23d St., New York. 1911.

quires prolonged attendance, there are record slips for continued cases. There are also accident blanks with skeleton forms on the back for graphic records. There are blanks for daily records of temperature, pulse, etc., on the back of which directions for giving medicines to the patient can be entered in great detail. This also is an excellent and convenient innovation, for I have found it advisable in the course of my experience to leave written directions with my patients for the taking of medicines and for other treatment. A number of other sheets are included in this very useful and handy system. It is incomplete for the specialist in so far as the blanks provided are intended only for the general practitioner and the facilities for graphical records are limited. The system has the advantage of being moderate in price, of being compact and easy to keep, and of being fully adapted for the needs of the general practitioner.

Two Elaborate Systems

Among all the many physicians' systems on the market, there are two which, while at first sight most complicated and cumbersome, are, in actual use, everything considered, unusually efficient. Unfortunately, the expense of their first installment is considerable, amounting to \$100 and more. However, it may be paid for in small monthly instalments.

The system of the American Case and Register Company, of Salem, Ohio, is represented as the *ne plus ultra* of account systems and case-records available.

The record slips in this system are furnished in the greatest possible variety, not only for general-practice cases requiring prolonged attention, cases requiring brief attention, etc., but also for all imaginable specialities—tuberculosis, surgical, accident, rectal, gynecologic, eye, ear, nose and throat, stomach, genitourinary; further, there are records for sputum examinations, x-ray treatment, blood examination, skin diseases, vaccination, insurance examination, and so forth. There are blanks for planning the daily work, blanks for the graphical recording of anatomical findings, and, in fact, blanks for every conceivable

purpose, including statements and reminders, the latter feature being common to many of the systems under discussion. In this system, as well as in the Keith system, the preservation of the original prescription (the carbon copy being handed to the patient) is made a feature—one of importance in case of eventual litigation.

Very similar to the American System is the McCaskey Physicians' and Surgeons' System, Alliance, Ohio, which emphasizes especially the strict individualization of each patient. Like the "American", it offers the greatest possible variety of record blanks, and its account system is excellent. I am constrained to say that both systems appear to me eminently complete and suitable, and a comparison of their relative merits would be uncalled for. In both systems the records are filed in envelopes which, like the envelopes of the Physicians' Drug News System, contain on the face the financial status of the patient, and the total records are housed in beautiful desks, cabinets or safes that are carefully and excellently constructed.

I find it more difficult than I had conjectured to describe adequately these excellently devised systems, which in their completeness and ease of maintenance leave little or nothing to be desired. My readers will be able to form some idea from the illustrations shown in advertisements of these concerns in all medical journals, and the firms which have put these as well as all the other systems on the market are most courteous in affording all possible information and illustration of their facilities for the physician. A number of the systems which I have described carry advertisements in this journal, and their outfits are usually illustrated in these announcements.

If we attempt to draw comparisons between the different classes of systems, their ease of operation, their legality, and all that, we can hardly avoid the conclusion that bound account and record books have the disadvantage of being ill adapted for use outside of the office. They require a preliminary writing of notes and memoranda, the entering of which is sooner or later postponed and ultimately omitted,

and if the notes and memoranda are destroyed after copying, the original entries are thereby lost.

The card-index systems, on the other hand, are convenient, easy to handle, and permit of original entry of charges and historical data at the time the service is rendered. They may have the disadvantage of requiring two entries, one on the ledger card and one on the history-card, but this can be obviated by using the back of the ledger card for records. The small cards are in so far of less value as they require special cards with diagrams, but in the case of an elastic system this is hardly a difficulty.

The loose-sheet records, as described in the last four systems, are perhaps the best to employ. They permit of complete and exact records of services and charges in the simplest possible manner, they are handled with ease, and enable physicians to keep their accounts constantly posted to date with the slightest amount of work. Barring the last two, the primary expense is inconsiderable, but we can readily believe the manufacturers of the latter when they assure us that their outfits pay for themselves in a short time in better collections and greater convenience.

The Legal Status

According to Dr. Wm. F. Baker ("Physicians' Business Methods," Philadelphia), "the law requires that an account book of original entry must show in plain language and figures, which can be read by judge and jury without personal explanation, the name of the person against whom the charge is made, the name of the person for or to whom the services or supplies are rendered, the date, the description of services, and the charge must be definitely carried out in dollars and cents. The entries must also be made while the transaction is still fresh in the mind—not later than the next day."

The Physicians' Record Company have kindly communicated to me the opinion of their attorney, as follows: "To make book accounts competent, it must be made to appear that the book or the books contain original entries of transactions pertinent

to the business in question; that the entries were made in their regular course of business, at or near the time the transactions were had; that the entries were made by one authorized to make them; that he himself did the acts recorded or entered them from the information derived from one having knowledge and authority; that the transactions were regularly entered and the books correctly kept. Usually the person who made the entries must be produced to establish their truth or his absence must be accounted for."

I present this legal opinion, because objection has been made that loose-leaf systems or any kind of elastic systems are not admitted as evidence. This is manifestly erroneous, and the language is very clear on the point that all that is required is the record of original entry, whether this be made in a book, on a card, or on the barn-door. The last has actually happened, and the evidence was admitted when the barn-door showing the disputed memorandum was produced in court.

The idea principally followed in almost all of the more modern systems which I have described is that of making a complete record of the transaction between physician and patient at the time the physician's or surgeon's services are rendered, covering not only the nature of the services rendered and a memorandum of the treatment given, whether medical or surgical or special, but also a memorandum of any cash that may have been paid or of a debit item which is to be entered.

We have seen that the law requires that such records be made within twenty-four hours from the time when the services are rendered, and the nature of the present-day systems renders it almost a matter of course that the memoranda be recorded either in the office or at the bedside, as the case may be, but always in the presence of the patient. This in itself is a very important point in favor of keeping such records, inasmuch as it at once legalizes the business method of the physician, because it renders the accounts and records acceptable under the law if at any time legal complications should arise. I have repeatedly spoken of the desirability of

not only writing prescriptions in duplicate, but of preserving the original prescription, and to handing the duplicate to the patient to have it filled. This is for the reason (as I have been informed by a lawyer) that carbon copies are not admissible as evidence, the original memoranda being required in all cases.

The Respect Engendered by "System"

A further point in favor of making a careful record in the presence of the patient lies in the greater respect engendered in the latter, not alone for the business methods of the physician, but more so for his professional methods, because he appreciates the fact that his physician makes notes of the clinical findings, of the history and complaints of his case, appreciating it in his later visits if the physician can turn to carefully kept records and refer to symptoms which would otherwise have slipped his mind, and which yet appeared of considerable importance to the patient. This point alone often would have repaid me for the slight effort and time required to take notes, because the satisfaction of the patients, when they find that their histories are remembered and recorded, is so evident that they speak of it to their friends; and the physician who keeps such records and is therefore in a position to remember all about his patients will gain materially, not only in immediate cash returns, but in the extension of his practice.

Another point which I wish to refer to is the value of graphical records, explanatory of the notes, on physical examination of our patients. Dr. Carl E. Black of Jacksonville, Illinois, who uses an elaborate record card-system, which he has evolved for his needs, in the course of many years, uses rubber stamps showing the outline of the different portions of the body. Such

rubber stamps are useful for those physicians who do not for any reason invest in one of the systems which supply diagrams, and they can be procured from the Barton Manufacturing Company of New York, in designs covering all the general and special regions of the human body. If nothing else is recorded in this manner, the result of the chest examination should most certainly be noted down diagrammatically, because it completes the record of the case materially. In the more elaborate systems which I have described these diagrams are provided for.

While I have limited myself almost exclusively, in this paper, to the business side of physicians' records, the keeping of case-records has of necessity been mentioned here and there. This is not only of importance for the physicians' own sake, but also for the reason that carefully kept case-records will enable us to obtain a clearer view and more exact knowledge of diseases which we are called upon to treat, and of the results of certain forms of treatment. It will also enable us to advance the sum total of medical knowledge by making it possible for us to prove the truth and correctness of our treatment and of our observations and by communicating these to our brother physicians at medical conventions.

The keeping of case-records is an art which has been handed down to us from Hippocrates, whose histories are distinguished by their exactness and by his shrewd observation and judgment. In the case of the general practitioner, it has become a lost art in a very considerable degree, and it is to be sincerely hoped that it will soon be regained, for the greater advancement of our power to benefit those who place themselves in our charge, and for the greater benefit of mankind.



Guaiacol and Related Substances

Especially Concerning Their Mode of Administration

By **NORMAN ROBERTS, M. D., Alexandria, Virginia**

EDITORIAL NOTE.—*This is an important paper, and should supply much food for thought and good "meal" to be inwardly digested. Especially is this true with regard to the mode of administering guaiacol, which has a peculiar antipyretic action when applied to the skin, as referred to in the comment, and further studies in another article to be found in the Miscellaneous department.*

CREOSOTE and other guaiacol-containing substances have, in the treatment of tuberculosis, a long-standing reputation, which, though, is lessened by their evil tendency to upset the alimentary canal when they are administered by the mouth in doses sufficient to produce their full therapeutic effect. Attempts to minimize this defect by admixtures and by combining the active principles as carbonates, sulfonates, etc., have not yet come up to the standard of success. In the absence of a nonirritant guaiacol, and in view of the crying need which guaiacol partially satisfies, we should make more use, than now is the case, of other modes of administration of guaiacol, particularly by the skin.

When guaiacol is freely applied to a considerable area of the skin, on gauze or thin flannel under an impervious covering (oil-silk, sheet rubber, or paraffined paper), enough is absorbed to charge the blood heavily, as is evidenced by the strong odor of the drug in the urine and on the breath. It is probable, moreover, that, if the application is made as near as possible to the tuberculous area (for instance, to the chest-wall over an infiltrated apex), the lesion gets a double dose of the remedy, through the general circulation on the one hand, and through local diffusion on the other. Again, the dermatitis which sometimes results from the overaction of the guaiacol on the skin¹ acts beneficially on the principle of counterirritation; whereas the gastro-enteritis often produced when guaiacol is administered by the mouth is an unmixed

and often a great evil. Furthermore, when one skin area rebels, another can be substituted (whereas, in the human subject, there is but one stomach); hence large amounts can be administered through the skin for long periods of time, continuously or with short rests.

From the standpoint of guaiacol therapy, there are three classes of tuberculous cases, namely: First, those in which the good effect of the remedy (if any) is outweighed by the bad; second, those in which the remedy is useful as a palliative, stimulating nutrition and relieving symptoms; and, third, those in which, when the remedy is administered early and adequately and with proper treatment of the patient in other respects, the disease (*post hoc* or *propter hoc*) subsides promptly and permanently. If the practice of administering guaiacol by the skin instead of by the mouth were to become general, we should soon see a large fraction of the first class transferred to the second and probably even a larger to the third. To which class a given patient belongs cannot be determined except by direct trial, but the results in the successful cases justify the attempt wherever there seems to be any hope whatever.

It must be admitted that the treatment is somewhat heroic. The skin may be irritated and at times feel very uncomfortable, while the patient is the center and source of a strong ham-like odor that causes him to be snap-diagnosed and shunned.²

¹Guaiacol is much less irritating to the skin than creosote, a fact which may make all the difference between success and failure in a given case. Most subjects of tuberculosis are weak in the "spine" as well as in the lungs, and will not stand continued discomfort.

²Incidentally, another argument against the "home" or "ambulant" treatment of tuberculosis. A person with tuberculosis is essentially different from normal human beings. It is a violation of a law of nature for him to be closely associated with them; and both he and they suffer in many respects if this law is violated.

In these latter days of phthisiophobia, therapeutic nihilism, mental healing, 'pathies, and general mollicoddleism and lady-likeness, the drawbacks mentioned are perhaps enough to account for the unpopularity of the skin-route administration. Moreover, it is conceivable that the constant presence in the circulation of large quantities of an irritant drug would damage other organs, for example, the kidneys, unless the patient were carefully watched. But there seems to be no other way in which an adequate quantity of guaiacol can be gotten into the system with so little disturbance of function in general or with so much therapeutic effect.

Much of the difference of opinion with respect to guaiacol is due to its variability as met with in commerce. (This, unfortunately, is true of most drugs.) Most of the guaiacol and creosote which I personally have used were of known purity; whereas Willard Ohliger (Proc. Mich. Pharm. Ass'n, 1906, p. 46; abstract in Bull. No. 58, Hygien. Laborat., U. S. P. and M. H. S., Washington, p. 251) "found most samples" of creosote "to be coal-tar creosote, a dangerous and reprehensible substitution." Similar statements are made with respect to other related drugs. Indeed, "pure" creosote itself is a substance of very varied and only partly studied composition, and not by any means a proper substitute for guaiacol, which latter is a definite chemical compound, of the formula $C_6H_7.OH.OCH_3$ [1:2]. It would appear that not sufficient attention has yet been paid to the isolation of the various constituents of creosote, nor (except partly for guaiacol) to a detailed study of their therapeutic effects. Until this is done, therapists who desire the best results should discontinue the use of creosote in favor of guaiacol where powerful and exact effects are wanted. And where, as in early tuberculosis, it is especially important to get the maximum of therapeutic effect with the minimum of incidental damage, the guaiacol should be administered through the skin.

[The history of creosote is an interesting one, and some two years ago it occupied the

writer's spare moments for several weeks. From this literary study, which was never published, the following notes are taken:

After Reichenbach, in 1832, had prepared creosote from beechwood, its marked antiseptic properties were soon made use of therapeutically. Since the local use of creosote in aqueous solution caused ulcers to clean up, the naive therapeutic ideas of the time argued therefrom that it would be of value for the purpose of cleaning a suppurating tuberculous lung. Reichenbach himself had suggested the use of the preparation in hemorrhage and diarrhea, because of its astringent action. Having used the remedy successfully in two cases of hemoptysis as well as in the intestinal hemorrhage and diarrhea of consumptives, that is, in the accidents of phthisis, it was soon employed for the treatment of the phthisis itself, and this with sufficient success to insure its renown to spread rapidly through all Germany, and even to France and England.

From the beginning, the opinions of writers were divided and even diametrically opposed. While some hailed in the drug a specific for a disease that hitherto had resisted all efforts of treatment, others denied any curative or even beneficial action, and a few authors even published unfavorable reports. Nevertheless, creosote acquired such a degree of notoriety that its application may be said to have been limited only by the number of patients, being employed for every conceivable ailment, almost.

In 1835 Martin Solon was requested by the French Academy of Medicine to investigate the new remedy. His strangely inefficient experiments naturally produced no results. He submitted an unfavorable report, in which he asserted that creosote was not more efficacious against chronic and skin diseases, against cancer and phthisis, than all the remedies which had been used so far. It appeared, however, to be of service in preserving normal and pathological anatomical specimens.

As a result of this unfavorable report, together with several reports of fatal cases of poisoning from creosote, the drug fell into disuse, until in 1877 Bouchard and

Gimbert, two French physicians, influenced its adoption for the treatment of phthisis. They reported upon 93 cases treated with creosote with the result of 20 percent of cures and 30 percent of improvement. They claimed that the action of creosote was evidenced in diminished expectoration, cough, fever, and night sweats, in stimulation of the appetite and of the general condition, in local improvement in the lung. The formula which they used was: Creosote, 13.5; tincture of gentian, 30; alcohol, 250; malaga wine, 1000. After this favorable report, creosote was again employed in Germany and in England, and some favorable reports were published from the Charité in Berlin.

With the discovery of the tubercle bacillus, the action of the drug upon the growth and virulence of the bacillus was naturally investigated, and was found to be inefficient, especially by Cornet. Although it was realized that a sufficiency of creosote could not be introduced into the tuberculous organism to kill the tubercle bacilli or even to inhibit their growth without injuring the organs, some authors claimed that the drug acted especially as an intestinal antiseptic and by improving the appetite. It was also found that the bronchial irritation and the amount of expectoration were favorably influenced, and that creosote exerted a beneficial effect upon the concomitant mixed infections of phthisis. One report from Leube's Clinic in Wuerzburg offered the conclusion that in a beginning phthisis creosote does excellent service and is not surpassed by any other remedy. In advanced cases, it is not only useless but may even cause disagreeable and possibly dangerous symptoms.

In 1887 Sahli, in Bern, argued that the favorable action, in phthisis, of creosote—which, as mentioned by Dr. Roberts, is a complex body of but imperfectly understood chemistry—could probably be obtained by the one constituent of the drug which is constant and which is a definite chemical compound; and he thought, in fact, to have obtained equally satisfactory results from guaiacol as from creosote. Since then the modifications and salts in which creosote

has been prepared for administration have been many, and while it cannot be called a specific, it holds with many practitioners and with some prominent clinicians high rank as an important remedy in the armamentarium for phthisiotherapeutics.

Unfortunately, the administration of creosote or of any of its derivatives cannot be continued in the required doses for a sufficient length of time without injury to the digestion. While at first in almost every case the appetite is improved, at least after the first distaste for the drug has been overcome, and while therewith the general nutrition is raised, after a while there occurs an irritation of the gastric and intestinal mucosa, and if now the use of the drug is persisted in without interruption, the appetite will fail. Largely for this reason, it has been suggested that the drug be administered in the manner outlined in Dr. Roberts' paper.

Guaiacol had long since been used locally, although not for the general guaiacol purpose, but rather because it was found that its external application exerted an antipyretic and an analgesic effect. Guaiacol, which is less toxic than creosote, has therefore been used for allaying fever by painting over the skin with one Gram or less of the pure liquid, or one cubic centimeter of a 25-percent solution in alcohol; also for analgesia in complicating neuritis or intercostal neuralgia. In larger doses, repeated daily, it may, however, produce collapse, and therefore cannot altogether be recommended for this purpose.

J. Ridge reported, in *The British Medical Journal* for 1903, on his experiences with guaiacol dissolved in olive oil (1 in 80) in the treatment of variola, having applied this oily solution at intervals of four hours to the affected skin. The results were decidedly beneficial, not only upon skin lesions but also upon the fever. Out of 44 cases of confluent variola only one terminated fatally, which favorable result was ascribed by the author to the guaiacol treatment.

Hecht recommended, in *Therapie der Gegenwart*, 1909, that 10-percent dilutions of the drug should be used, and he found this strength of the drug in an ointment base

to work well in herpes zoster due to neuritis, both on the skin lesions and on the pain. It was also found useful as a 10-percent solution in spirit of camphor in nervous pruritus, itching skin affections, as also in erysipelas.

Hecht used guaiacol locally in all sorts of cutaneous diseases. He further found that guaiacol, as a 10-percent ointment, has a good effect upon the fever, even in advanced cases of phthisis, not only reducing the temperature for hours, but shortening its duration. It is useful in relieving the chest- and back-ache of tuberculous patients. He further found it, mixed with vasogen, of good service in tuberculosis of the bronchial and mesenteric glands of children. He

claims that with proper precautions the unfavorable effects previously observed after the use of excessive amounts could be avoided, and that the local use of guaiacol should be established in medical practice more definitely than it is.

Many other authors have reported in recent years on this form of administration of guaiacol. Dr. Roberts' interesting paper on the subject is based on his personal experiences, and we can fully coincide with him regarding the good effects observed. We should like to have our readers adopt this mode of administering guaiacol, not only in the case of tuberculous patients, but also in skin diseases, and to report to us.—ED.]

Simple Benign Adenoma of the Deep Urethra

By G. FRANK LYDSTON, M. D., Chicago, Illinois

Professor of Surgical Diseases of the Genitourinary Organs, Medical Department,
University of Illinois

IN view of the frequency with which adenoma in the form of circumscribed growths or tumors is found in the prostate proper, it is remarkable that cases are not oftener met with in which the adenoma obtrudes itself upon the free surface of the mucosa of the deep urethra. I believe, however, that, if more care were taken in exploration and urethroscopy, these growths would be oftener found.

It has been my fortune to encounter, on several occasions, adenomatous growths in this portion of the canal. The tumors produce the same phenomena as other obstructive conditions in the deep urethra, namely, obstruction to micturition, and occasionally pain and hematuria. The severity of the symptoms naturally depends on the size of the growth. The following cases are in point:

A young man of 25 presented himself, complaining of frequent and painful micturition, the urine being purulent, and sometimes bloody. There was no history of venereal disease. Exploration with the sounds and *bougies a boule* showed the urethra to be extremely sensitive. The deep urethra bled at the slightest manipu-

lation. There was pronounced spasm and pain in the membranous portion. By the application of cocaine and adrenalin chloride, it became possible to explore the deeper portion of the canal.

The prostatic urethra was found to be encroached upon by a growth which at its anterior extremity seemed to be about the size of a large pea. At the base of this growth, anteriorly and posteriorly, were two smaller ones, the various tumors making a mass which was easily outlined by means of the urethroscope. On account of the extreme irritability of the bladder and the long duration of the symptoms, it was deemed advisable to remove the tumors by perineal section, to be followed by a few days' drainage, which was accordingly done.

The growths were removed without the slightest difficulty, being readily shelled out by the finger. They were covered with attenuated mucous membrane. The flaps of mucous membrane left behind, after their removal, were trimmed away by the scissors guided by the finger. The microscope showed the growths to be simple adenoma, similar to simple prostatic adenomata.

I have had but three other cases in which the growths were of considerable size. In one of these the entire mass was somewhat larger than a hazelnut, producing considerable urinary obstruction, and quite free bleeding at the end of micturition. Pain was so severe at this time that vesical calculus was suspected. In a number of instances where I have performed perineal section for other conditions, I have found

adenomatous growths of small size in the pars prostatica, and have removed them with the curette.

Since calling attention, some years ago, to deep urethral adenoma, my experience has tended still further to convince me that the condition is more common than is generally supposed, although it is rarely marked enough to produce symptoms attracting the subject's attention.

The Nez Percés Indians

By CHARLES STUART MOODY, M. D., Sandpoint, Idaho

EDITORIAL NOTE.—This is the eighth installment in Dr. Moody's series. In this number he discusses the Indian's religious beliefs. Like the preceding articles of the series, it will be found intensely interesting.

RELIGIOUS BELIEFS

PERHAPS nowhere have writers dealing with Indians displayed such woful ignorance as when trying to tell of their religious beliefs. The religious like the political life must have been studied at first hand and no mere cursory investigation will serve to render it intelligible. If the Christian faith is complex and incomprehensible, the savage faith, to the untrained thinker, is infinitely more so. The savage red man, like the savage white, has simply endeavored to account for natural phenomena by attributing to them supernatural powers. By so doing, he invested all things, animate and inanimate, with a spirituality.

In entering upon a discussion of the Nez Percés idea of religious matters, I shall have to crave permission to be as rambling and disconnected as I wish. The different tenets will not appeal to me in anything like their natural sequence, and I shall set them down as they do come to my mind. Out of the jumble you may be able to gather what the aboriginal Nez Percé actually believed before his faith was tinctured by association with the white invader. While I disclaim any quarrel with any religious organization, nor caring to enter into a controversy upon the subject, in my humble opinion, had the Nez Percés, and for that matter every other savage

of whatever race, been left to the enjoyment of his old faith, it would have been vastly better for him.

The old-time Nez Percé had no conception of the beginning of the world. To him it always was; it existed, however, a long time before becoming peopled with human beings. During this period the earth was inhabited by animals and birds who possessed the power of speech and the ability to reason and plan, and a great many of the myths of the Nez Percés are built about these reasoning animals and birds. Of these, the coyote plays by far the larger part; he is the star actor in nearly all their dramas. In several myths he figures as the creator, in others, as the dupe and cat's-paw. Bear, elk, deer, mountain-sheep, and magpie are the heroes of several, while the beaver is the greatest benefactor, for it was he who brought the fire. In one or two, the raven takes an active part, in another, heat and cold are made to act.

As will be shown later, the Nez Percé looked upon the earth as his mother and the sun as his father. This will be brought out more fully in the legend of creation. This idea of earth-mother was why the Nez Percé did not wish to till the soil. His earth-mother created him, she would also feed him without any effort upon his part.

The whole universe was peopled with spirits—malignant or benign, as they were supposed to effect the people for good or ill. Disease, under certain conditions, was a malignant spirit that had obtained entrance into the body of the sufferer and was working him ill. A particularly enterprising and busy evil spirit was that producing rheumatism, and several of us can sympathize with the Indian in his judgment on that score too.

A great deal has been written by alleged Indian students about the Great Spirit, and religious and other writers have translated this expression as "God." So far as my knowledge extends, the Nez Percé had no conception of an abode of eternal bliss other than the ultimate possession of the earth. His faith did not create a heaven for the soul to inhabit immediately after death. There was no "Great Spirit" sitting, in supreme majesty, upon some heavenly throne, dispensing justice and handing out happiness to the souls of people who stood before him in a long line awaiting his decree. The idea of a heaven for the soul never found lodgment in the Indian brain until after the advent of the missionary. In fact, it has no very firm hold on his imagination even today.

The Indians believed that some day there would come a messiah to the earth, who would call from their graves all the dead, bring back to the hills the game, the fish to the streams, all the children of men should be at peace and a reign of endless happiness begin. Just where the messiah was to appear from they did not know, nor must the reader confound him with our idea of Christ, the savior of mankind. The primal fall and atonement had no place in the Indina religion.

About Smohalla, the Yakima Prophet

It has been asserted that the Nez Percés drew their religion from the Yakima prophet Smohalla. That Smohalla did influence the religion of the Nez Percés to a great extent, no one conversant with the matter will attempt to deny, but that he created it, no person who has investigated the matter will assert for an instant. The essentials of the Nez Percés religion existed

hundreds of years before Smohalla was born. He simply crystallized the different beliefs into a rude sort of ritual. So great was the influence of this rude leader, not only upon the Nez Percés alone, but upon other tribes of the Northwest, that a brief sketch of his life may prove of interest.

Smohalla was the head man, or subchief, of a small division of the Yakima nation that lived on the banks of the Columbia River not far below Priest Rapids. He was more than a chief, in that he was a "tu-at" as well. It is impossible to arrive at anything like the date of his birth. It occurred probably somewhere near 1820. When I was quite a small boy I knew him very well, and even then he was very old. In person, Smohalla was short, thick-set, almost if not quite a hunchback; his head was nearly destitute of hair.

In personal appearance, he was unprepossessing, even repulsive. It was only after one came to know him that you realized the reason for his wonderful influence over his people, or, indeed, over any Indian people who came under his teaching. He was a natural orator and could hold the Indians spell-bound by his eloquence. There was nothing vehement about his oratory, rather it was soft and persuasive. Even in his controversies with the whites over the white occupancy of his land, he never lost control of his temper, though there were times when his expressive black eyes would flash with indignation. One writer has said that his appearance suggested "cunning." In that the chronicler was in error. Never have I seen a countenance more frank and open in its expression. He never adopted the dress of the whites, but clung to his tribal habiliments. These were always kept scrupulously clean as was also his person.

It has been said that Smohalla attended the catholic missions established on the Coast, but no claim has ever been made that he united with the church. If he did attend the church and its services, one can readily understand where he got the foundation for his ritualistic work.

Had it not been for a single happening about 1860, Smohalla might have lived and died an obscure Indian "tuat." Through

some unknown Indian controversy, Smohalla incurred the enmity of another Yakima chief, Moses, who lived further up the river. Moses threatened the prophet's life, and to protect himself Smohalla "made medicine" against his enemy. Moses was very much afraid of this "medicine." One day he armed himself and sought out the "medicine-man" where he was engaged in his incantations on the river shore, picked a quarrel with him, and when the fight was over, Smohalla was left for dead. Moses rode away, secure in the belief that no more "medicine" would be conjured up to his destruction. But Smohalla was not dead. He recovered sufficiently to crawl into a canoe, cast it adrift and float on the current of the Columbia far out of the country. He was finally rescued by some white men and after many weeks recovered from his hurts. Fearing the vengeance of Moses, if he should return to his own country, Smohalla resolved to travel, and his journeyings constitute one of the most remarkable pilgrimages ever undertaken by an uncivilized person. They occupied years of time and extended over many thousands of miles of country, during which time he visited many tribes.

All this time Smohalla carefully concealed his identity, and learned from the people he visited many things about themselves, their religion, and their mode of life. Upon his return to his own country he announced that he had died and returned only by command of the messiah, to teach his people the way of life. The credulous people believed him, and Moses, his former enemy, was so frightened that he never attempted his life, nor did Smohalla ever make "medicine" against Moses again.

Sets Himself Up as a Prophet and Regenerated Their Religion

Owing to the influence of the whites, the Indians had departed from their primitive simplicity to a great extent, and it was Smohalla's mission to lead them back into the old paths. That Smohalla was a genius there can be no question, that he was insane is equally certain. He was subject to cataleptic trances and while in them was insensible to pain. When his people

seemed inclined to return to the ways of the white man he would go into a trance and threaten to free his spirit from the body and return to the messiah. Upon his return from the trance state he would relate his visions and promulgate them for the guidance of his people. That these admonitions were always for the good of the Indians is an argument in his favor. That Smohalla actually believed in his inspiration and his mission would have been evident to any person who saw and heard him.

His ministrations, confined at first to the small tribe of which he was a member, soon spread to other tribes and his services were in demand everywhere. He visited all the tribes of the Northwest and taught them his religion and the manner of its observance. That this religion was simply a crystallization of the already existent beliefs I have already stated. Without education, he devised an alphabet of cabalistic characters, and set down in a book he always carried a record of events and prognostications. This book is still extant, but no man has ever been able to decipher its characters. He also devised a flag with certain heraldic emblazons that was carried for him by a standard-bearer and erected in front of the tepee wherein he held his services.

The service itself, of which I witnessed several, was a very interesting performance. The long double tepee was swept clean, a fire lighted in the middle of it, a clean strip of canvas laid down the center. On one side stood a row of twelve women dressed in red, on the opposite side, a similar number dressed in white. These women had their arms crossed with fingers extended and touching the shoulders. A band of drummers occupied one end of the tepee and kept time by striking their instruments. The women would raise up upon the balls of their feet, poise an instant, then drop back, keeping time to the music. Down the floor through the center knelt men and boys in rows of seven, each seven being dressed in something of uniformity. Smohalla himself knelt at the head of the tepee, his left hand over his heart. He was dressed in a white gown with a red stripe running

down the back. The services themselves consisted only in the ordinary Indian chants, such as the lament for the dead, the prayer for the return of spring, the petition for a good harvest or for a great "run" of salmon. After these were sung a dish of cooked salmon and several ollas of water were brought in and Smohalla commanded each to take salmon, then take water. The trance part of the program might be postponed unless the priests were in a particularly receptive mood, when he would enter the trance state, during which time his devotees remained perfectly quiet and silent. Upon emerging, he would arise and talk to his congregation at some length. After the ceremonies were concluded the Indians joined in a characteristic Indian dance, which usually continued far into the night.

Some of Smohalla's Precepts

It has been written that Smohalla taught hatred of the whites. These statements were made by the ignorant or the designing. What Smohalla actually said was that the ways of the white man were not the ways of the red, and advised his followers not to attempt to live as the whites lived. Holding to the ancient earth-mother belief, he did not want his children to desecrate their mother by tilling the soil. He found that the white people were inclined to make farmers of the Indians, consequently he taught them to shun the ways of the whites. He noticed also that the whites were dishonest, treacherous and unfair in their dealings with the Indians and with each other. These attributes he did not wish instilled in his people, so he called their attention to them. He weighed carefully many statements of the missionaries and the priests and found that they did not square with the facts; he called attention to these discrepancies and advised his people always to speak the truth.

The fact is, the closer one studies the creed of this remarkable man, the more he becomes convinced that that creed is the best for the Indian. That is, of course, if he looks at the matter without his mental vision being distorted by preconceived notions about the salvation of the human

race. In his creed Smohalla lays down rules that might have been followed with great profit by the very men who were sent to lead the Indian into the way of salvation and grace.

The substance of a few of Smohalla's remarks have been preserved. It will be understood that it is impossible to give them verbatim, but a free rendering will serve to convey to the reader an idea of what the Indians believed with regard to some things.

Some of Their Tenets

When the Northern Pacific railroad was building across the western country the grade was laid without regard to the property-rights of the Indians. Smohalla's tribe protested against this invasion of their homes and, in a conference that was held over the matter, one of the commissioners suggested to the prophet that it would be better for him and his people to follow the ways of the whites, plow and seed the land, dig for stone and sell it to the builders, cut the rich meadow grass and sell the hay to the railroad contractors. This, according to the Indian lights, was impossible. In reply, Smohalla said: "You ask me to plow the ground. Shall I take a knife and tear my mother's bosom? You ask me to dig for stone. Shall I dig under her skin for her bones? You ask me to cut grass and make hay and sell it and be rich like white men. Shall I dare to cut off my mother's hair?"

That, in a few words, illustrated the attitude of the Indians on the subject of agriculture. It would be sacrilege for them to disturb the body of their true parent, the earth.

Upon another occasion he was taken to task for his habit of dreaming. The white man to whom he was talking suggested to him that the Indians should not commune with themselves so much. Smohalla replied:

"My young men shall never work. Men who work can not dream, and wisdom comes to us in dreams." That was another tenet in his religion.

Once, in a talk with Senator MacMurray, he enunciated the doctrine of the resurrec-

tion. After objecting to the division of the Indian lands, where each should take a home for himself, he spoke as follows:

"It is a bad law, and my people can not obey it. I want my people to stay with me here. All the dead men will come to life again. Their spirits will come to their bodies again. We must wait here in the homes of our fathers and be ready to meet them in the bosom of our mother."

That was the reason why the Nez Percés, in 1877, objected to the partition of the lands. If they should part from their lands, they would have no place to meet the spirits of their ancestors when the time came for the resurrection. While it will be understood that Smohalla was a Yakima and was speaking for the Yakima people, his words apply with equal force to the Nez Percés.

Smohalla was accused of hating the whites. He denied this very forcibly, then told how the Indians treated the first whites and how the whites afterward repaid their kindness. He continued, "We are now few and weak and can offer no resistance, and their preachers have persuaded them to let a few of us live, so as to claim credit with the Great Spirit for being generous and humane. But they begrudge us what little grass our ponies eat."

There you have the whole miserable story from the Indian's standpoint. He gave all that he had to give when the white men came poor and footsore and hungry, then when they grew powerful they took away from the Indian everything that he had, even to begrudging the few wisps of grass his ponies ate. Yet, Smohalla looked earnestly at his auditor and said, "If they tell you Smohalla hates all whites, do not believe it." He was willing, after all, to forgive his oppressors, for that was what his religion taught him. The attitude of Smohalla was very much the same as that of the Nez Percés on the same subject.

We must now leave Smohalla. Perhaps we have devoted more attention to him than circumstances would seem to warrant. The reason is that his ideas were the same as those of the people under consideration and it were easier to deduce conclusions

from his remarks than from attempted explanations by the Nez Percés.

Smohalla, before his pilgrimage, was a "tu-at," "medicine-man," "dreamer," or whatever else the whites chose to call him in their ignorance. As a matter of fact, he was a "tu-at," nothing more, all the rest are fabrications of the interested missionaries or government officials.

The Tu-ats as Religious Personages, and How They Were Made

And this seems the proper place to enter a little more fully into the consideration of this important class of Indian officials. The "tu-ats" have already been slightly considered in their political relation to the Indian form of government, but it was in their religious capacity that they were most influential.

It may be as well here to tell how the "tu-ats" were created. It was not every Indian who could become a "tu-at." The candidate for these honors must have displayed from his earliest youth especial adaptability for the business. A hard-headed practical Indian could never become a "tu-at," he could never acquire the proper mental state necessary to the fulfilment of the office. Let me sketch the making of a "tu-at."

A youth was selected who gave promise of being a dreamer, such a one as, in civilized life, would likely develop into a poet. This youth was placed under the tutelage of an old "tu-at," who then began to instruct him in the mysteries of the cult. The first thing to learn was the legendary and traditional lore of the people. He was told and retold all the myths, legends and historical incidents of the people from as far back as their tribal history ran. Next he was instructed in the mysteries of the faith, the Nez Percés "five points," as we might say.

The next thing was the vigil of purification. In this he was expected to fast, remain without sleep, and pray. When finally overcome by fatigue and hunger he fell asleep, his vision was related, and the old "tu-ats" interpreted it. If, as usually was the case, they could read some meaning into it, no matter how far-fetched that

meaning might appear to civilized ears, the youth was constituted an acolyte. That was not the word, in fact there is no word in the Indian tongue that expresses it. He was made a sort of sub-priest and invested with certain minor duties in connection with the work. Like the medical undergraduate, he was not intrusted with difficult matters, but allowed to do little things that did not require great powers of divination. Finally, when the old "tu-at" died the young man was invested with his robes of office and fell heir to the paraphernalia of incantation.

His duties were manifold. His to interpret dreams—his own and those of others; his own, to ascertain the will of the messiah; of the others, because of their influence upon the person dreaming them. His to heal the sick when the person ill was possessed of the spirit of evil. His to

counsel and advise the leading men and chiefs of the people. Thus his importance was of the greatest. In the next chapter I intend to take up the duties of the "tu-at" in connection with sickness more fully.

In concluding this paper, let me briefly epitomize the religious beliefs of the Nez Percés. The Indian believed in a messiah; he believed that everything had a spirituality; he believed that these spiritual entities influenced mankind for good or ill; he believed that all the Indians were to inherit the earth; he had not knowledge of a future punishment or of a future heaven; his conception of heaven was as an earth where hunger and thirst should never come, where cold should forever be banished by warmth. In short, his idea of future happiness centered around the physical pleasures entirely, what he would most enjoy here was what he was to enjoy then.

Immunity to Infectious Diseases

How It May Be Produced by Sanitation of the Inner Body-Surfaces

By N. B. SHADE, M. D., Washington, D. C.

EDITORIAL NOTE.—Dr. Shade believes that many infectious diseases, including even tuberculosis and appendicitis, may be prevented or cured by suitable immunizing treatment, addressed mainly toward the alimentary canal. Whether you agree with Dr. Shade or not, he will set you thinking.

IF the necessity of the sanitation of the inner surface of the body were inculcated into the minds of the people, especially of the rising generation, it would greatly curtail the work of the family physician, as there would be fewer cases of typhoid fever, intermittent fever, continued fever, diarrhea, dysentery, cholera, cholera morbus, colic, indigestion, appendicitis, and a host of nervous diseases that are caused directly or indirectly by an unsanitary alimentary canal.

I have written several articles on this subject for medical journals, but the laity should have these facts laid before them in black and white, regardless of the effect it would have on our own incomes. I dare say there are but few physicians that practise medicine because they like it, but only do so to make a living; so, I would

judge, about half of them will protest when I suggest that competent doctors should deliver lectures to the school-children of proper age, aided by diagrams and black-board illustrations, showing the abdominal viscera, the stomach, the different sections of the serpentine organs, cecal valve, appendix, and so on, explaining the nature of digestion and of constipation, which latter is the principal cause of appendicitis.

Will germs find entertainment in a sanitary alimentary canal? Will seed sown on the concrete streets of the city where there is no soil germinate and grow? Then, is it not plain that it is impossible to develop germ-life in a sanitary body?

As a rule we digest all germs with impunity. And so the Abbott maxim, "clean up and clean out", should be practised and put in the minds of the young when it will

be lasting. That old-folks' saying in this country—years ago when families lived far apart and there were no railroads and doctors were scarce—"Trust in God and keep your bowels open" looks like "apples of gold in pictures of silver" to me. A reliable saline laxative, epsom salt or any magnesia salt taken, with plenty of water, on an empty stomach and generally best upon rising, will do the work with an occasional dose of calomel—5 grains with 3 grains of sodium bicarbonate. I take 10 grains of calomel sometimes when I find 5 grains fail to give relief. Many a time during the last forty years have I put 5 grains of calomel on a child's tongue, washed down with water or breast milk, with the happiest results.

We are too much afraid of calomel in large doses. Give it often. It will give you a reputation in your field of practice. No one need know he is taking calomel. Call it a "compound soda capsule," or when you put it on the tongue with your pocket-spatula merely say, "a tasteless powder," and wash it down with water. Always see that a good dose of saline laxative is given next morning. Small doses of calomel produce a deathly sick stomach more frequently than large doses. I never give small doses except when I want the physiologic effect of mercury.

I could mention numerous cases where I believe I was instrumental in saving the life of my patient with heroic doses of calomel repeated frequently, and in no case can I recall when anyone was harmed in any way by large doses. My wife, who is stout, at the age of about fifty years was taken with an attack of what the Washington doctors called appendicitis. I thought it was only impaction caused by a period of unsanitary inner surface or constipation. An operation was suggested. After she had taken three 5-grain calomel capsules, without relief, she was given one every other night and saline laxative every morning. The bowels moved very freely, being watery and frequent, but the pain in the right iliac fossa still persisted as also the tympanites. I said, "No, do not operate yet," and gave several more 5-grain calomel capsules until she had taken five or six

doses, when she began to improve and in a few days was up and about as usual. She has enjoyed elegant health ever since, with no symptoms of appendicitis.

Do you know, I am of the opinion that there are but few cases of appendicitis (so diagnosed) that require the knife. Maybe I am wrong, but I have not had a case of appendicitis, to my knowledge, during forty years' practice. I could cite many cases that I feared might require operation but which yielded finally to treatment.

Allow me to mention a young man from New York who said he had two attacks before he came to Washington to take a government position. His physicians insisted on operating, but he declined, saying that if he ever got another attack he should have his appendix removed. Three weeks after his arrival in Washington he had what he called the severest attack and he requested that his old physician (myself) be called; which decision saved him time, money, and possibly his life, for he was determined to have the operation performed at once, as he told me on my arrival. I found great tympanites and all the tenderness and other symptoms of appendicitis. I promised to get another surgeon and operate on the following morning.

With a pocket-spatula I placed some—possibly 10 or 15 grains—calomel on his tongue and washed it down with water, ordered turpentine stupes, and gave, internally, veratrine, aconitine, and digitalin, one granule each every half hour until sedation, and on the following morning, saline laxative. When his bowels poured forth their contents, he straightened out his limbs, which before had been drawn up because of the tender condition of his abdomen. The following day he began to sit up in bed, and after that made a good recovery. I advised him to keep his bowels in a sanitary condition, in the future. To my knowledge, he has never had another attack.

I could mention a number of cases and call names of men who will witness that physicians wanted to operate, but who now are well and enjoy good health, although they did not submit. Some of them have

become stout and declare they have a new lease of life.

Sanitation of the inner surface of the body will, I believe, assure immunity to tuberculosis as well as to all infectious diseases, while also modifying the malignancy of all diseases of this character.

I must confess that this subject of sanitation and calomel are two of my favorite hobbies. Year by year I am becoming more persuaded that the laity should be taught how to keep clean and sanitary, not alone as to their home and environment, but particularly as regards their serpentine organs.

[While we can heartily endorse much that Dr. Shade says, we cannot leave the subject without a word of warning. There are many cases of appendicitis which are

distinctly surgical, and where an immediate operation is essential to save life. We have in mind one case that came recently under our observation—that of a beautiful girl of sixteen, an only daughter. She was taken one night with severe abdominal pain. A physician was called who pronounced the case one of “acute indigestion.” No relief followed his medication, and another physician was called who diagnosed appendicitis—and temporized. Finally, following a severe rigor and the local signs of peritonitis, she was sent to a hospital and operated upon. The appendix was gangrenous, had ruptured, and the entire peritoneal cavity was infected. The girl died.

It is always best to bear in mind that there is no safety in taking chances with a gangrenous or severely inflamed appendix in the abdomen.—Ed.]

Is Malaria Cured by Quinine?

By M. G. PRICE, M. D., Mosheim, Tennessee

MALARIA is a disease which is not very prevalent in this section of our country. Now and then we hear of our old-fashioned “a chill, a fever, and a sweat,” but the attacks are not, generally, typical, occurring more often as a fever, a sweat, and a period when these symptoms are not in evidence. Still other forms are encountered, but these are so light that a death results very rarely.

A long time ago, in pioneer days, when this country was a “waste and howling wilderness,” malaria did quite a business, but not now. And why? Because the country has been cleared and cultivated, and streams have been rid of fallen trees and other debris, thus leaving no hiding places for the germ producing the disease, while, moreover—locally speaking—that noxious pest, the mosquito, is no longer so very prevalent. Occasionally, if there is a rain-barrel standing handy, a few of the stinging malefactors will be hatched out and come to you in the stilly night to scratch an acquaintance and casually to take a sip from your veins in exchange for a full-fledged plasmodium, which latter will

be the progenitor of a multitude of lusty grandchildren before the rise of sun.

The disease is easily handled. It usually takes longer—that is, here—to diagnose the trouble than it does to cure it. What I mean is, we have no bacteriologist at hand and so our diagnosis must be made from the clinical history of the case, which takes from three days to a week to become a certainty.

Quinine Does Not Cure

Diagnosis arrived at, the treatment is easy, and certain. Quinine, yes—but quinine by itself never cured a case, and under certain circumstances will bring about the very condition you are trying to combat; hence, maybe, you are or might be using it homeopathically. It may seem a strange doctrine that quinine will not cure. It has been thought the only “specific” we possess, but every doctor who has used it knows that in some multiple of seven days—7, 14, 21, 28—after the administration of the drug, if no more is given, the malarial attacks will return. Cure to stay cured is specific doctrine, in my judgment. Quinine does not do it; the malady comes right back.

Long years ago I myself had the old "shaking" kind. I asked my physician what was the matter with me. He said he didn't know, and I reckon he didn't; but I now know that I had a chill, a fever, and a sweat at some multiple of seven days for six long months—but I took quinine, until now, after the lapse of thirty-five years, the "crickets" are singing merrily in my ears, nor has this eternal din ceased in all this long stretch of time. Quinine doesn't cure, but is of *value*.

The Role of Quinine and a Sure Ague Cure

Let's talk about the drug just a little bit and see for what it is fit. There are certain specific conditions in which it will act well; in other words, when the system is in the right condition for the use of the remedy we get something from it. We must have a soft skin; mucous membrane of the mouth moist; tongue moist and inclined to be clean; pulse full, soft; temperature normal or inclined to be so. Then quinine will overcome malaria periodically, but as to taking a "death-grip" on the disease, it won't do it. I have been badly disappointed in the use of quinine, and that not so long ago. The period and amount taken means much in doing even the little that this drug will do.

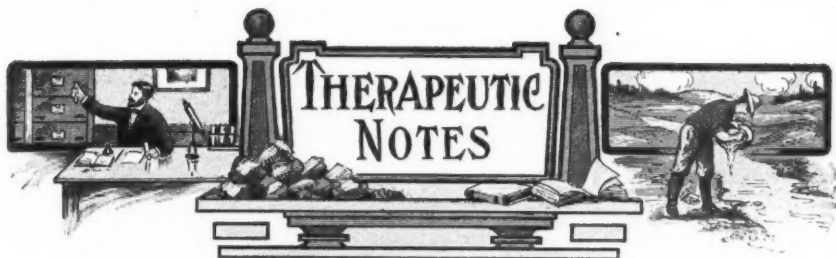
The remedy should be given when the fever is down and the system in the condition named above; but I generally first purge my patient thoroughly with calomel and podophyllin. I give it the night preceding the intermission, then give enough quinine to cinchonize the patient com-

pletely and to have him so when the time comes for the recrudescence. I do not know how much it will take; one will have to find out by experimentation. Every patient is a law unto himself in this particular; but when you have him under control, then the fight is to prevent a return of the attack. Quinine, I say, will not accomplish this. Then what?

Put 2 ounces of nitromuriatic acid and 150 grains of ordinary, old-fashioned sulphate of iron (contused) into a bottle and set aside, uncorked, for twenty-four hours to digest. Of this chemical solution give to 10 to 12 drops in 4 ounces of water every four hours. This is a formula bequeathed by our sainted Brodnax, and it is a "sure cure". There are no recurrences.

[Quinine kills the plasmodia but does not affect the eggs. These hatch, and every new brood must be met by a new saturation of the blood with quinine. Arsenic armor-plates the red blood corpuscles against plasmodial attacks and kills animal blood-parasites. Quinine arsenate, one grain, equals quinine sulphate one Gram; and this dose given daily renders the blood unwholesome to the plasmodia. These set tight in their splenic fortress; but give daily, one to three grains of berberine to contract its parenchyma and the germs are squeezed out into the blood where the 'cides get to them. That iron-acid mixture is great: so is the triple arsenates with nuclein combination pushed to the limit, with Price's cholagogs and *quantum sufficit* of sulphocarbulates to follow.—Ed.]

"IT was once remarked," said Dr. E. P. Lyon, "that, if you give Jacques Loeb a collar-box and a piece of string, he will make a discovery. On the other hand, I know a man who, three years ago, could not do any work because his Edinger apparatus had not come; two years ago he was waiting for material from Java; last year he found he needed a dark-stage illuminator and a micropolariscope. Now he is waiting for a new laboratory building. These extremes illustrate the man and equipment proposition better than many paragraphs of theory." And the same is true of the doctor. The really resourceful man, way out in the backwoods, will do more for his patients with his 9-vial case than many a city "professor" with a well-equipped hospital and a corps of nurses to help him.



STIFF NECK

Dr. Whiteside of Plover, Wisconsin, tells us that he has splendid results in the treatment of stiff neck by the use of alternate doses of macrotin and bryonin, a granule of each every hour, or as often as indicated.

FOLLICULAR TONSILLITIS

If you have a case of follicular tonsillitis, with white spots on the tonsils—the cases that are so often mistaken for diphtheria—try using as a gargle a saturated solution of sodium sulphocarbolate. It works like a charm, so one of our friends tells us.

PELLAGRA IN ANDERSONVILLE PRISON

Dr. J. W. Kerr, of Corsicana, Texas, writes us that he was in charge of the prison hospital at Andersonville, Georgia, during the late war between the states. He is now convinced that a large percentage of the deaths which occurred among the prisoners was due to pellagra.

THE ADVANTAGES OF SULPHUR AS AN INTESTINAL ANTISEPTIC

Wild (noted in *Charlotte Medical Journal*, 1911, July) says: (1) Sulphur is almost tasteless and easily administered. (2) It is insoluble in the stomach, and the greater part of it passes along the whole length of the alimentary canal. (3) It does not interfere with the action of any of the digestive secretions. (4) It forms active antiseptic substances in the intestines when their contents become neutral or alkaline. Some of these substances are gaseous and penetrate to all parts of the intestine. (5) It is sufficiently

nonpoisonous to be given in effective doses. (6) It has valuable laxative properties, which promote an early evacuation of the intestinal contents. (7) It is cheap.

HEXAMETHYLENAMINE IN EAR SUPPURATION

T. K. Hamilton (*Australasia Medical Gazette*, May, 1911), in a lengthy article on rhinological advances, strongly recommends hexamethylenamine (formamine or urotropine) for suppurative sinusitis. He used the drug with good results after a radical mastoid operation in a case of long-standing suppurative otitis media, the chemical appearing in the cerebrospinal fluid in from one-half to one hour after administration. Its secretion as formaldehyde may prove it a valuable internal antiseptic in suppuration of any kind.—*The Prescriber*, 1911, Sept., p. 234.

IODINE DISINFECTION OF THE OPERATIVE FIELD

Frolow reports in a Russian journal very favorably on disinfection of the operative field by painting with iodine, after the method of Grossich. This has been especially advocated in America by Major Woodbury, of the United States Army Medical Corps.

TREATMENT OF ELECTRICAL SHOCKS

Sir Thomas Oliver, in *The Lancet*, discusses with some detail the pathology of the injuries caused by electricity. He tells us there are two main theories as to the cause of death from electric shocks, namely, the first, that inhibition of the medulla

oblongata leads to an arrest of respiration followed by cessation of the beating of the heart; the second, death directly from the heart without the intermediary of respiration.

Oliver's experiments led the author to believe that death is of cardiac origin. He says that after a person has been in contact with a live wire after the circuit is broken, even if there should be no signs of life, the body must be placed upon its back and artificial respiration resorted to at once, continuing this for a considerable length of time. He has experimentally succeeded in resuscitating animals whose heart and respiration had ceased for several minutes. At one English power-station, it is said, a man who had received 2000 volts and who had been pronounced dead by the attending physician was resuscitated by his fellow-workmen, who resorted to artificial respiration and kept at it for over an hour.

HYDROGEN DIOXIDE IN GASTRIC HYPERACIDITY

G. W. Hall (*Boston Medical and Surgical Journal*, June 15, 1911) finds that a teaspoonful of hydrogen dioxide, given in a glass of water after each meal, diminishes the amount of hydrochloric acid in the stomach and gives great or total relief from the distressing symptoms of hyperchlorhydria. Constipation, should it result, may be relieved by giving a teaspoonful of Carlsbad salt in hot water before breakfast.

OILED OR UNOILED FLOORS

The school authorities in Birmingham, England, have been conducting some experiments for the purpose of determining the best way to overcome the dust nuisance in school rooms. Here are the results:

The number of colonies of bacteria developed from air of rooms with unoled floors before agitation of the floors was 31, as compared with 20 for rooms with oiled floors, an excess for unoled floors of 55 percent.

The number of colonies of bacteria developed from air of rooms with unoled floors after agitation of the floors was 100, as compared with 28 for rooms with oiled floors, an excess for unoled floors of 257 percent, or nearly four times greater than for oiled floors.

Oiled floors after agitation showed an average of 40 percent increase in the bacterial colonies, while unoled floors after agitation showed an increase of 222.6 percent.

TREATMENT OF SERUM SICKNESS IN DIPHTHERIA

John R. Keith (*Brit. Med. Jour.*, July 15, 1911) has found the pain of serum sickness to subside under treatment with hot poultices and fomentations, while the urticaria yielded to calcium lactate given in 5-grain (0.3 Gm.) doses. In two cases all symptoms rapidly disappeared under the influence of salicylic acid; in one case sodium salicylate was given in 5-grain doses every three hours, and in the other acetylsalicylic acid was similarly administered.—*The Prescriber*, 1911, Sept., p. 230.

HYDROGEN DIOXIDE AGAINST HYPERACIDITY

While in the past, in the treatment of hyperacidity, the aim principally was to diminish the excessive acidity of the gastric juice, or then to impede the secretion of an abnormal amount of the same, the investigations of Kauffmann and Aldor have directed our endeavors into a new channel. They found a connection between the pain resulting from hyperacidity and the diminished secretion of mucus, and were thus led to employ hydrogen dioxide, which increases secretion of mucus.

Roubitschek has investigated the value of this treatment in 35 cases. The patients received 300 Cc. of a 1-2 percent solution of hydrogen dioxide while fasting, and if the effect of this was insufficient, a 3-4 to 1-percent strength was employed. The author made use of Merck's perhydrol. The treatment was persisted in, as a rule, for two weeks and was followed by cure in

80 percent of the cases treated, the patients remaining free from trouble for a period of the three months during which they remained under observation. The other 20 percent were those of cases complicated with hypersecretion and disturbances in motility and which, therefore, were not adapted for this mode of treatment.

Roubitschek found that solid preparations of hydrogen dioxide had a less certain effect and acted more slowly.—*Deutsch-Amerikanische Apotheker-Zeitung*, Sept., 1911, p. 89.

POISONS DO NOT AFFECT DIFFERENT ANIMALS ALIKE

A short time ago we were told by Dr. Kaupp, pathologist of the Colorado State Experiment Station, that chickens have a peculiar tolerance for strychnine. It is not uncommon to give to an ordinary fowl 1 grain of this substance at a single dose, while 1-4 grain is the average remedial dose. On the other hand, strychnine acts almost as quickly as hydrocyanic acid on the cat, and, as everybody knows, is one of the most rapid and efficient poisons for the dog. Morphine, on the contrary, produces almost no effect on the dog, and our associate, Dr. Palmer, has given as high as 25 grains to one of average weight without causing death. Horses are quite susceptible to morphine, but, instead of sedating them, it acts as an excitant. It is pretty hard to deduce from these results the action of the drugs upon the human being.

ICE WATER AND FANNING IN PNEUMONIA

Dr. R. L. Hammond, in the September *Medical Brief*, advocates the application of ice water to the entire head and back of the neck of persons suffering from pneumonia. The moistened parts are to be vigorously and constantly fanned. The hands and wrists are also moistened and left outside of the covers to cool. By these measures, Dr. Hammond maintains, he is able to secure much better results than he can by the so-called "cold-air" treatment. Furthermore, the fanning has a more decided

effect on the lowering of the temperature than the ice-cap.

Marked relief follows this measure, shown not only by reduction of temperature but by the pulse becoming less frequent, stronger and fuller. If the case is a malignant one or extremely severe, the Doctor finds it necessary to apply a well-filled ice-cap to the precordium and lower portion of the thorax. If the temperature fails to fall under the ice applications, he rubs the surface of the chest upon which the ice rested with turpentine and applies a strong cantharidal plaster, covering it and the entire chest with a well-ground linseed-meal poultice, as hot as can be borne. This is allowed to remain ten or twelve hours and will help to bring about the crisis.

MORE ABOUT WATER DRINKING WITH MEALS

T. B. Hawk, in *The Archives of Internal Medicine*, September 15, 1911, continues his studies on water drinking, this time with reference to the activity of the pancreatic function under the influence of copious and moderate water drinking with meals. As a result of laboratory experiments he concludes that the ingestion of water at meal time, ranging in volume from one-half to one and one-third liters, stimulates the pancreatic function in two ways:

First, by direct stimulation of the nervous mechanism of the pancreas, while the water is still in the stomach.

Second, by increased stimulation occurring upon the entrance of the increased volume of acid chyme into the duodenum.

Dr. Hawk says that the drinking of water with meals should bring about a more rapid and complete digestion and absorption of the fat and carbohydrate constituents of the diet, and these observations have been verified by laboratory experimentation.

SCIATICA AND ITS TREATMENT

Dr. William Henry of Harmon, Illinois, says that for several years he has been treating sciatica successfully in the following manner:

First he gives cathartic doses of podophyllin, following these with from 10 to 15 grains of ammonium chloride every two hours until the pain begins to abate. The latter is given in an aqueous solution, only chemically pure ammonium chloride being used. Under this treatment his patients become well in a very short time. Dr. Henry says he has treated cases of this character which have been in the care of other physicians for a long time with no improvement, and in a few days under the ammonium salts the patient would be free from pain. After the pain disappears there may be a sensation of numbness in the affected part for a few days.

Dr. Henry expresses the hope that those who read *CLINICAL MEDICINE* will try this method of treatment and report results.

THE TREATMENT OF TRIGEMINAL NEURALGIA

Dr. Alfred Fuchs, assistant to the K.-K. Clinic for Psychiatry and Nervous Diseases in Vienna, in an article reprinted from "Einfuehrungen in das Studium der Nerven-Krankheiten fuer Studierende und Aerzte," says:

"In aconitine we have a remedy which has a specific effect in trigeminal neuralgia. To obtain success, two requirements are important. First, the employment of an effective and well-prepared preparation, and, secondly, the following of a system by which the aconitine effect is supplemented by a purgative treatment. It is not easy to obtain an effective preparation. The official tincture of aconite root (German Pharmacopoeia) is unreliable. The difference in the effect of the various aconitine preparations evidently depends upon the presence, in variable quantities, of a strongly active aconitine and the less active constituents contained therein. For these reasons the dosimetric pills, made with a solid mass, are more effective. The maximum dose is variable. Under medical administration the quantity given can be properly controlled, since the intoxication symptoms, such as parasthesia of the tongue lips and hands (ulnar region), are indications for the reduction of the dose. A cumu-

lative effect of the drug is not to be feared, because of the catharsis which must be combined with the treatment. The effectiveness of proper active catharsis for the relief of pain in neuralgias is widely known, but is, unfortunately, little considered in practice. Gussenbauer was the first who emphatically called attention to the importance of active catharsis in the treatment of trigeminal neuralgia.

"Gussenbauer's experiences with peripheral resection of the trigeminus branches were so unsatisfactory that he discontinued this practice almost entirely and enriched the therapy of trigeminal neuralgia with an evidently unessential, but really useful detail, so that this clinician's injunction to attend to the bowels has come to be recognized as the most successful method in the treatment of neuralgias."

In other words, "clean out, clean up, and keep clean." And give aconitine. This is supportive of the position which we have maintained for many years: that neuralgia is often, perhaps most often, an effect of intestinal toxemia. Remove this factor and many cases are readily cured.

TREATMENT OF INSOMNIA IN CONSUMPTION

A Jacobi, in *Medical Review of Reviews* for June, 1911, calls attention to the fact that sleepless nights are far more than inconveniences; they are dangers sapping the strength and undermining the resisting power of the patient. The fear lest he become a victim of morphinism does not weigh, in view of the fact that an advanced tuberculosis will finally terminate in one way only, and the relief and comfort awarded by morphine outweighs the oratory of a fanatic who gathers his indications and contraindications from a tract. His tuberculous patients take 1-4 grain (0.015), more or less, of morphine at bedtime. Those who are inclined to night sweats take a milligram (gr. 1-60) of atropine with it in a pill, to which, when there is constipation, a dose of aloin equal to that of the morphine dose may be added.



The Action of Morphine and of Opium on Domestic Animals*

II

OPIUM ACTION

LET us see now the action of morphine upon some centers in the medulla.

Injectations of morphine produce vomiting frequently in the dog and the cat, which is due to a direct excitation of the medullary center. This center is first excited, but becomes paralyzed by the further absorption of more morphine, and the vomiting stops. Therefore, in poisoning with this alkaloid, emetics are contra-indicated.

Small and medium doses of morphine produce more energetic contractions of the heart and a slowing of the pulse. Morphine is a heart calmant. Large doses produce an acceleration first and then a progressive abatement of the heart beat. In the dog, also, the pulse is slowed—by action on the center of the pneumogastric. Contrary to this, in the horse we have always observed a strong and accelerated pulse, even after the administration of small doses.

Lastly, morphine slows the respiration in both man and beast and does so even with small doses of the alkaloid, owing to a direct intoxication of the medullary center of respiration, which ceases to respond to the venosity of the blood. Animals which have received morphine have their arterial blood much darker than that of the control animals and yet their respiration is slowed. This slowing is demonstrated easily by

making the animals respire by a spirometer before and after the injection of morphine. Here is a trachotomized rabbit. It inspires the air through a Mueller valve and expires the air into this gasometer. The gasometer shows the animal to expire normally 370 cubic centimeters per half minute. We will now inject into this animal 2 centigrams (1-3 grain) of morphine and have another reading of the gasometer after a quarter of an hour; we shall find the quantity of air expired considerably diminished. [The gasometer showed at that time 50 cubic centimeters of air expired per half minute.

Let us now study the action of morphine on the spinal cord.

A normal (medium) dose of morphine acts but slightly on the spinal cord. A little larger dose excites this organ and may even provoke a veritable tetanus, like strychnine.

This tetanizing action is in proportion to the animal's zoological scale. Fishes never sleep but manifest tetanic phenomena always. The frog enters the tetanic state very readily; the brain sleeps and the spinal cord is excited. The frogs which I show you here have not yet well-pronounced tetanic symptoms, the injections having been made somewhat tardily, yet some of them already show a notable increase of reflexes.

In the dog after he awakes we notice at times periods of excitement, with tetanic spells.

In the horse we find stiffness of the limbs and fibrillary contractions in various

*A lecture, with demonstrations, given to the Society of Veterinary Medicine of Brabant, July 3, 1910, by Prof. A. Van den Eeckhout.

groups of muscles (patellar), contractions resulting from the excitation of certain medullary centers.

Lastly, in infants in whom the cerebral functions are but little developed we get from morphine at times tetanic convulsions, instead of sleep, wherefore it is so dangerous to administer morphine to an infant.

In resuming, we may say that morphine influences the brain according to the species of the animal; it tonifies the heart, calms the respiration, and excites the spinal nervous apparatus. Morphine also exercises a very important and specific action on the digestive tube; it diminishes the intestinal secretions and induces constipation in animals; it moderates or arrests intestinal peristalsis and puts the intestines to rest. This last action is very manifest in man.

With the stomach it is the contrary; far from being subject to the same influences from morphine, just mentioned, there is a tendency for its peristaltic movements to become rather exaggerated.

The action of morphine on the alimentary canal has not been explained as yet. Some presume a diminution of the excitability of the pneumogastric terminals, and of the sensory terminals in the walls of the intestines; others believe that the intestinal repose caused by morphine is the result of an inhibitory phenomenon exerted on certain medullary centers. Be this as it may, one thing is established, that morphine constipates.

Magnus and Zunz have of late, from their experiments on dogs, interpreted morphine constipation in an altogether different way. They have noticed that in dogs morphine produces a spasmodic contraction of the pyloric sphincter and that it retards considerably the passage of food from the stomach into the intestine. The authors claim, therefore, that this constipation is due, above all things, to pyloric contraction and to too prolonged stay of the food in the stomach.

But what these authors have observed in the case of dogs is not sufficient to explain morphine constipation in other animals, and especially in the case of the horse. We know that in the horse the stomach plays

but a secondary part in the phenomena of digestion, comparing the stomach with the intestinal tract.

The stomach of the horse is not very voluminous, considering that it empties itself several times during a meal. Its capacity is about the twentieth part of the capacity of the intestines and the food that passes it very rapidly takes between three and four days to pass the whole length of the intestines. A medicament therefore which acts principally on the stomach and the pyloric sphincter, and which does not act on the intestines, would hardly be able to produce constipation in the horse.

We have made a series of experiments on this animal and have found that morphine, or a preparation of opium, is always followed by constipation more or less pronounced, in the sense that the quantity of dung diminishes during the first twenty-four hours.

From the anatomical disposition of the digestive canal of this animal it is probable that morphine acts principally upon intestinal peristalsis. The mechanism of the arrest or diminution of this peristalsis is as yet unknown.

That morphine which constipates the horse by diminishing his intestinal peristalsis may be indicated in certain forms of colics, especially when these are accompanied by diarrhea and characterized by an exaggerated intestinal peristalsis.

Lastly, let us discuss poisoning with morphine and the means of combating it.

The toxicity of morphine increases in proportion to the degree which the intoxicated animal holds in the zoologic scale; it takes as much morphine proportionately to poison a frog as it does to poison a human being.

When morphine has been absorbed it is almost always useless to give emetics, which can not act because the medullary centers have been paralyzed.

Repeated washings of the stomach should be made and neutralizing substances such as potassium permanganate should be given by the mouth, and also mild purgatives, such as castor oil. The patient should be kept in a rather warm place to avoid chilling the congested skin.

Cardiac stimulants should be given when the heart becomes feeble; artificial respiration should be resorted to whenever it becomes necessary; and lastly atropine should be injected, hypodermically, in small doses. Although atropine is as much an hypnotic as morphine still it produces an action on the respiratory center absolutely contrary to that of morphine, exciting that center and arousing the individual put asleep by morphine. It acts also on the pneumogastric and aids the heart's action.

What is the therapeutic value of morphine in veterinary practice?

In the dog it is indicated as a hypnotic, as a pain calmant, as a moderator of respiration, to check bowel action and as a calmant of the intestines, in the same way as it is used in man.

In the cat it is indicated in small doses as a constipant.

In the horse it may be used in calming certain vicious and especially excitable animals, but its action is uncertain. Lastly it may be used in the horse as a constipant and calmant of intestinal peristalsis in certain forms of colics and inflammations, when it is desirable to put the intestine to repose. It is on the contrary contraindicated in most cases of colic, as in colic from indigestion, from constipation, from volvulus, from gases, in all which cases evacuants are indicated. It is not useful for procuring hypnotic or analgesic effects, yet it may be used, nevertheless, as an anesthetic.

ESCULIN IN THE AMBULATORY TREATMENT OF GASTRIC ULCER

In practice it is not always possible to carry out a strictly constant recumbent position of the patient treated for gastric ulcer, and we are thus compelled to treat such cases ambulatorily. Professor Klemperer insists that the main indication of gastric ulcer treatment should be satisfied under such circumstances, namely, that the food be so thoroughly prepared by chewing in the mouth and mixed with the saliva that it arrives in the stomach as a thin watery gruel of finest comminution. Every coarse food is prohibited. It is

best to have all the patient's food prepared exclusively in a pulpy state. Milk should be given only in small mouthfuls at a time. Small doses also of sodium bicarbonate should be given to saturate any excess of gastric acids.

When blood can be detected in the stools while the diet is of a nonanimal nature, then the author prescribes, to be taken on an empty stomach, four esculin tablets crushed and finely suspended in half a tumblerful of water, and the same dose repeated four days in succession. [Esculin is finely pulverized aluminum suspended in glycerin.]

Of course, the diet as described above must be strictly observed. In this way, 52 patients with gastric ulcer were treated who were not confined to their beds, they receiving esculin and a pulpy-food diet and milk. They lost completely all their subjective ailments, and blood disappeared from their stools in the course of a four-weeks' treatment.—*Therap. der Gegenw.*, 1910, No. 10, in *Pharm. Zentralh.*, 1911, p. 476.

FIBROLYSIN: ITS GOOD EFFECTS IN RHEUMATIC HEART ATROPHY

Castelli reports on a case of rheumatic cardiac hypertrophy treated with fibrolysin. A 10-year-old girl suffered from this affection, showing cyanosis, tumefaction of face and extremities, weak and irregular pulse, and swelling of the liver. The usual remedies had no effect on the trouble. The author then made a trial of a hypodermic injection of 2-3 Cc. (35 minims) into the gluteal region, every other day.

After ten days, the respiration and the palpitation improved. After thirty-five injections made, the body weight increased, subjective symptoms vanished, the cyanosis and edema noticeably abated, and the cardiac dulness diminished in extent, so that the patient could be discharged. The effect of the remedy may perhaps be explained by a resolution of adhesions of the pericardium.—*Zentralbl. f. d. Gesamte Therap.*, Feb., 1911, in *Pharm. Zentralh.*, 1911, p. 503.



A Specific Treatment for Tuberculosis

OUR readers will remember the interesting paper contributed by Dr. W. C. Goodwin on this subject to *CLINICAL MEDICINE* for January. The doctor has a further contribution on the same subject in *The Medical World*, for September, in which he describes his technic of administering the drugs upon which he principally depends for the successful treatment of tuberculosis, namely, calcium sulphide, sodium sulphocarbolate, and zinc sulphocarbolate.

Goodwin calls calcium sulphide the most powerful general internal antiseptic now in the possession of the profession. He calls attention to the fact that it is not well absorbed in granules containing more than 1-6 grain. The dosage which he prescribes for the average patient is 1-2 grain (3 granules) every hour in the day time and every two or three hours during the night.

Dr. Goodwin evidently considers intestinal tuberculosis an extremely frequent complication of the pulmonary disease, and it appears from his paper that, in his opinion, the cause of the fever peculiar to consumption is largely due to the tuberculous ulcerations in the intestines. He therefore endeavors to heal the intestinal ulcers by the direct application of sodium sulphocarbolate, which is an intestinal antiseptic possessing a local action only. Since in the presence of food and the intestinal contents its antiseptic action is soon spent, the dosage must be increased, as it becomes necessary to reach ulcers located further along the digestive tract.

The fever will show no sign of yielding even with increased dosage until the active

drug reaches the site of the disturbing ulcer, when the temperature will drop almost immediately. For these reasons, Dr. Goodwin pushes the sodium sulphocarbonates to doses which are sometimes enormous, omitting the drug only when its effect has become manifest by the disappearance of fever or when the therapeutic limit, shown by increasing intestinal irritation, becoming finally a diarrhea, has been reached. The diarrhea may be controlled by the administration of the strongly astringent zinc sulphocarbolate, and Goodwin frequently employs a tablet containing 4 1-2 grains of the sodium and 1-2 grain of the zinc sulphocarbolate.

For the regulation of the stools, the proper evacuation of all detritus and waste material, which is of course absolutely necessary for the healing of the ulcer, Goodwin uses compound licorice powder whenever necessary.

The sodium sulphocarbolate is given at first in doses of 5 grains every hour during the day, the tablet being best chewed and thoroughly mixed with the saliva. The administration of the sodium sulphocarbolate is preceded by the dose of calcium sulphide mentioned above. After the patient has become accustomed to the remedy and his stools have been regulated, the physician is to begin the gradual increase of the sodium sulphocarbolate. In addition to the 5 grains every hour, Goodwin gives 5 grains before and after feeding, then 10 or 15 grains, carefully noting the effect on the stools, endeavoring to make the increase amount to 15 or 20 grains every day. The dosage of from 10 to 15 grains after food is

increased to the same amount every hour, or more is given if the fever does not abate, or if the patient does not show signs of approaching diarrhea, in which case the zinc sulphocarbolate is given. In the majority of cases daily doses of 300 to 350 grains will reduce the fever, but an occasional patient requires much higher dosage; in the first patient whose case Dr. Goodwin reports, a schoolgirl of 13 years, the dose was gradually increased until the enormous amount of 700 grains was taken daily, when the fever, for the first time, came down and disappeared.

As a result of this treatment, Dr. Goodwin claims the rapid disappearance of the night sweats, coated tongue, fetid breath and borborygmi. Likewise the general sense of well-being, with the return of normal color to the face of the patient, is encouraging, but must be carefully discounted by the medical attendant and the patient kept well in hand, for relapses are always difficult to overcome and are very disheartening. With the disappearance of the night sweats, the stool becomes yellow and the urine a light-straw color. Indican, acetone, skatol, and various pathologic coloring matters are removed.

Unless the fever is high, the patients are only confined to the room. The diet is not forced. Four eggs and two quarts of milk are allowed an average patient—a larger amount only requiring a greater dosage of sodium sulphocarbolate for sterilizing the intestinal contents.

Where the patient is greatly debilitated, a good tonic, such as nuclein, is of advantage, especially if it is in the liquid form and can be placed under the tongue for absorption, following the administration of the sulphocarbolate.

A LOT OF LITTLE HELPS

In twenty-five years of strenuous country practice, ten years with the alkaloids, it would be a very poor observer who had not preserved and hung upon some of the numerous pegs of his memory some things worth recording for the benefit of his fellow workers, so I am submitting a medley of facts which I have thoroughly proven,

and which are not gleaned from any textbooks with which I am acquainted.

Do not forget the effects of ergotin as an equalizer of the circulation. It is, in my opinion, the greatest agent we possess for this purpose, and one case in which I used this drug occurs to me in which the results were surprising to all present.

W. D., male, age 66, had for twenty-four hours been in a state of profound uremic coma. When I first saw him I injected hypodermically 2 grains of ergotin every half hour for three injections. Immediately after the third he roused up, asked to be propped up, jovially saluted his sorrowing family, called for his pipe of tobacco, took nourishment, and, under eliminative treatment, recovered from his desperate condition. Now, I know this sounds like one of Grimm's fairy tales, but as these same tales made a lasting impression on my childhood's mind, so this instance of this drug impressed me in recent years, and though ten years have elapsed, the recollection of the lesson is still green and has been of great benefit to some of my patients as well as to myself.

Do not forget the solution of cocaine, 2-percent strength, in meningitis. Earache is one of those small affections like toothache or corns, but quick relief is needed for this most painful of troubles, and you get it by the instillation of a few drops of this solution, warmed.

One of the minor and neglected affections is the "common cold." Here, the running nose, neuralgic pains, cough, and headache are, in the great majority of cases, aborted by gelsemin given to physiologic effect, while probably an attack of pneumonia or pleurisy can be prevented by it. Not much in this, you say, but if neglected, you will be able to recognize the importance of this treatment.

Remember that useful drug atropine in sterility in the female in which the true cause is hidden from the careful diagnostician. Cases have responded, and will, to medication for a month or so with this drug. I believe that this treatment was first formulated by a graduate—Jones by name—of my alma mater, Edinburg University.

Male fern, obnoxious to taste and repellant to stomach, is not the only specific for tapeworm. Chloroform, croton oil, and glycerin—a much more palatable mixture—is also a sure shot when given with the proper precautions.

You may have a splendid reputation for handling typhoid fever, pneumonia or appendicitis and yet fall down on chilblains, so just be sure you have on hand a supply of zinc acetate. Use a strong solution.

Washing out the stomach, dieting, and attention to the alimentary tract in children (and for that matter in adults also) generally stops constant vomiting, though not always. From 1 to 3 grains of chloral hydrate will make both patient and doctor feel better.

The active principle of the deadly nightshade (atropine) may be a power for good in bloody flux. Clean out the bowels and administer atropine. You will get a smile and profuse thanks, if nothing else, from your patient.

Let apocynin be your sheet-anchor in abdominal ascites—may be slow, but it is sure.

The term neuralgia should be dropped from the vocabulary of every physician; if you have a real neuritis of the facial nerve to treat, just use ammonium chloride in large doses, and in connection with it big doses of castor oil. See the point?

Poor mother has nights of broken rest because Johnnie has night terrors. If he does not need circumcising, give rhus toxicodendron, and give mother a chance for sleep.

If the belle of the village cannot wear a low-cut dress at the social functions because of that mole on her neck, shoulder or chest, better for it to stay there; still, if it annoys the young lady by being situated on some legitimately exposed part of the body, the "dermal caustic" will make it disappear.

The simpler the trouble, the more numerous the remedies and the more the failures. Poison-oak in some people is responsible for a very irritating train of symptoms which frequently do not yield to the numerous remedies advocated by Professor Smith or Grandma Jones. Just make an emulsion of quinine, 1 1-4 ounce, and water, 6 ounces, and apply frequently. Also give 5 grains of

quinine internally, three times daily, for two days.

Then there is that disfiguring affection, ringworm. Kill it with a few applications of 20 grains of salicylic acid (pure) in 1 ounce of alcohol.

The fast young man comes to you trembling from the fear that his power of procreation is gradually being destroyed because one testicle is greatly enlarged. Treat his gonorrhea with the best remedies and put him on sodium salicylate. His swelling, also his fear, will disappear.

Don't discourage your patients with incipient tuberculosis who cannot afford sanitarium treatment. Make them wear an inhaler continuously until their temperature becomes normal. Prescribe the following mixture: Carbolic acid, drs. 2; creosote, drs. 2; tincture of iodine, dr. 1; spirit of ether, dr. 1; spirit of chloroform, drs. 2; and direct them to put this (5 to 10 drops) in the inhaler every two hours in the daytime and three times during the night. Of course, nourishing regimen also must be persevered in.

Alcohol is not always obtainable in cases of carbolic-acid poisoning, so rely on cream or unskimmed milk, and plenty of it. [Don't forget epsom salt.—ED.]

If you must irrigate in your case of gonorrhea—and it is better to do so if a non-irritating injection is used—try hydrogen dioxide, 1 ounce to 4 ounces of water, followed by potassium permanganate solution—1:500, and soothe the sudden feeling of the wicked. If you cannot pass your soft catheter, attach a syringe to it, inject a warm solution of cocaine, 1-percent—the catheter will slip in.

Gruel is a fine thing, and when made of buckwheat flour and used as a diet, it will bring away any pins, safety pins, needles, nails, and other such ostrich food children sometimes indulge in. Simple, but saves a cutting scrap—or scrape.

Just nettlerash—nothing dangerous, easy to diagnose and talk sympathetically about, but this does not allay the irritation, rather tends to increase it. Fifteen drops of chloroform in water beats sympathy.

All this comes from the backwoods and may be backwoodsy to some of

your readers; however, I find it useful to me.

GEORGE HARWOOD.

Johnson City, Tex.

[These short items, gleaned from everyday experience, will be appreciated by all the "family." Many others, doubtless, can contribute helpfulness like this. Who will do so? Let's have a big bunch for our next two or three issues!—Ed.]

ELLA WHEELER WILCOX ON MENTAL HEALING

In a recent number of *The Chicago American*, Mrs. Ella Wheeler Wilcox defends editorially two "new thought" healers, who were fined in New York State for treating supposed patients by "right thinking, breathing and exercising," to use Mrs. Wilcox's words. In justification of the right of these healers to practise medicine, the lady cites the mistakes of certain regular members of the medical profession. She tells of a young woman who became a victim of the morphine habit because the drug was given her by practitioners of the regular school, to relieve neuralgia, and who, after the doctors had failed to cure her, finally was saved by "a metaphysical teacher and healer."

She also tells of how an only child, a little girl of ten, was operated upon for adenoids and bled to death after this operation because the surgeon's "knife slipped." Then she asks why these physicians should escape punishment, simply because they were "regular" practitioners, while the new-thought healers, who base their treatment upon "an understanding of the laws of mind and power of thought," should be punished.

She attacks the surgeon, saying that "not more than one operation in a hundred is probably an imperative necessity." In her opinion it is time that "we ceased to give ignorant fetish worship to the medical fraternity," and finally, while she admits that "there is still a need in the world for doctors of the old school," she makes the prediction that mental and nature healers will increase, while the old-school practition-

ers will fall more and more into the background. "In one hundred years," she says, "thought will be the acknowledged power used by all reputable physicians to cure and heal humanity."

In the same number of *The Chicago American* there is an answer to this editorial, written, we presume, by Mr. Brisbane, since it has his terseness of expression, and goes without apology or explanation directly to the seat of the whole matter. This editorial is such a powerful one that we print it entire, with the hope that many of our readers will find opportunity to bring it to the attention of laymen, so many of whom are being taught to reason in the illogical way so well exemplified by Mrs. Wilcox's article:

In the last column on this page you will find our brilliant contributor and genius, Mrs. Ella Wheeler Wilcox. Her article criticises the doctors of the regular scientific school, praises so-called "mental healing", and expresses the opinion that within a hundred years doctors will do all their healing with the power of thought.

Mrs. Wilcox' article is interesting, but we are unwilling to print it without a few qualifying comments.

The great poetess is right when she criticises the doctor who, unable to deal with the neurotic young girl, makes of her a morphine fiend, to let himself out of his difficulties, takes money from the girl's father, and in return inflicts the most dreadful curse upon her. *Such a physician should be put in jail and kept there.*

It is true to say that the so-called mind-healing, faith-healing, Christian science and other cures of the same kind produce admirable effects in diseases which have their seat in the brain.

The brain can cure diseases of the brain—such as are not physical diseases; that is to say, diseases affecting the tissues or physical substances.

Mind-cures, faith-cures, Christian science, by bringing into play certain forces of the mind, can combat, and sometimes cure, illness caused by a weakened, disorganized mental and nervous condition.

It is in substance true, although a little harsh to say, that the modern mental healers "can cure any disease that you haven't got"; that is to say, that they can cure a disease which is entirely mental and largely imaginary.

It is untrue, and dangerous to say that any mental healing can take the place of a skilful surgeon.

Thousands of children are made miserable throughout life because they are not freed from adenoid growths—abnormal developments in the back of the throat which prevent proper breathing.

Only the surgeon's knife can remove and cure adenoids. No faith healer, mental healer, Christian scientist or anybody but a competent surgeon can do that, or ever has done it. Sometimes adenoids may be partially absorbed, extraordinary physical vigor may fight successfully against them. And the placid, happy mental state of the individual

who believes in faith-healing may help along a good physical condition.

But you need a surgeon to attend to adenoid growths.

You need a dentist to attend to your teeth.

You need antiseptic treatment or, better still, aseptic treatment, in all surgical operations.

You need a skilful doctor "of the old school" in childbirth, and if you have not got one you risk the life of the mother and child—and you ought to be put in jail for doing that. Some faith-healers get around the childbirth-problem by saying that it is not necessary to have any childbirth, and that if we were sufficiently scientific material births could be eliminated. But that is not very satisfactory when the child arrives.

The surgeon's knife does slip sometimes. If the surgeon is incompetent he should be driven out of his profession. The plumber's tools slip sometimes, and the job is bungled. Such a plumber should be driven out of his profession.

Many surgeons and many plumbers lack skill.

But that does not justify the silly notion that you can install plumbing in a house with faith or Christian science, or that, with those agencies, you can remove a vermiform appendix.

Nobody should interfere with a faith-healer or mental healer because that individual takes a dollar or ten thousand dollars from the *adult* who wishes to employ him.

So far as *adults* are concerned, there is no harm in allowing faith healers to treat their *noncontagious diseases*, from stone-bruise to lockjaw.

If the adult is willing to die of a noncontagious disease in order to demonstrate a theory, let him. Such an adult can be spared.

But faith-healers and others must not be permitted to deal with contagious diseases or pretend to cure them—that is dangerous to the public at large.

The body is a building like any big building in a city. Your body has a framework, which is the skeleton. It has plumbing made up of the veins, arteries and alimentary machinery. It has electric wiring, which is the system of nerves. It has a great engine, which is the heart, and it has a magnificent ventilating apparatus, which is the lungs.

The body requires the ministrations in each department of those that have made a specialty of its various parts—just as a great building requires its architect, builder, plumber, engineer and janitor. The janitor is the family physician who calls in the specialist and tells him what is wrong.

Our bones, blood-vessels and nerves need the scientific osteopath, who prevents pressure of the bones upon nerves or blood-vessels, stimulates functional activity and gives to the different parts of the body the proper supply of blood and nervous energy.

The lungs require their specialist in case of emergency and the various other ills that flesh is heir to; the dreadful cancerous growths and the contagious diseases require the treatment of learned, earnest scientific men.

Real diseases cannot be effectively combated with the treatment of the amiable faith-healing saphead who meets the situation with a declaration that there is no disease, and smiles amiably when the patient dies.

The doctor who attributes his own shortcomings to the patient's "heart failure" or "inability to rally

after an operation" may be a dangerous quack. But the good physicians know that and they say so.

Such a surgeon who attributes the patient's death to the patient's heart is no worse than the faith-healer who attributes the patient's death to the fact that he lacked the right brand of faith.

It is not a fact that one hundred years from now all doctors will cure with thought.

One hundred years from now and one million years from now matter will act upon matter, and the agency used will be force directed by thought.

Thought is the directing agency.

There are three things in the world: Thought, which rules and directs; Force, which carries out the orders and conceptions of thought; and Matter, in which thought realizes itself and its visions.

A hundred years from now and a million years from now the surgeon's knife will remove the tumor, if it still exists, just as the plow will cut through the soil and the hammer will carve the stone.

But perhaps in a few hundred years, and certainly in a million years, increased intelligence among men, greater self-control, absolute sobriety, wise living, scientific knowledge, even among children, will make disease almost unknown and limit the activities of physicians almost entirely to prophylaxis, which is prevention.

But even in a million years, and in ten million years, if the human race lasts as long as that, which it probably will, science, created by the mind, directing force and acting upon matter, will rule the world.

When you find a faith-healer who can build a henhouse with faith and without tools or move a pebble half an ounce in weight without touching it, when you are willing to trust your plumbing to a faith plumber who says he can cure the leak by thinking about it, then trust your body and your internal plumbing to the medical plumber who cures with thought.

With the exceptions above noted, we admire the article of our genius, Mrs. Wilcox, and cheerfully print it, believing that all sides should have a hearing.

TIMELY AND POWERFUL

It is rarely that there appears an article of such direct and general interest to those of every class as that by Dr. George Thomas Palmer, in the August issue of *The American City*, under the title, "The Shortcoming of Municipal Public Health Administration." It is a lucid presentation of appealing facts, supplemented by just conclusions and suggestions.

Dr. Palmer, whose wide reputation in the field of conservation of the public health gives weight to all he says, does not hesitate at a showing such as should arouse the community of every city to a sense of what should be done for the sheer preservation of life. We are becoming wiser than we were; we no longer deliberately pave

the way for pestilence; we assume to have a regard for sanitary laws; yet, each year, especially in the cities, thousands and tens of thousands die whose lives could have been saved. Why this condition exists is made clear in Dr. Palmer's article. There is maladministration by the people. Their city health departments are not sustained in being what they should be.

Where the fault lies is clearly in the ignorance or apathy of the community which will not adequately support its protectors. As the article demonstrates, every city should have a health department with a competent, earnest and enthusiastic physician at its head who, shall be so well compensated for his work that he can devote all his time and thought and energy to its accomplishment. He should have such assistants as he may require. Such an expenditure would be the wisest and best within a city's limitations. But, how often is it made?

The work of maintenance of a city's health should be broad indeed in its scope. It should be more than the mere meeting of emergencies. There should be appropriations, not only for the prevention of disease, but for use in constructive work for the future betterment of all conditions affecting the public health. There should be enforced a regard for general cleanliness; there should be maintained a perfect system of mortuary data, essential in a host of ways; there should be provision, under the best conditions, for the isolation of those afflicted with contagious or infectious diseases; for the preservation of infant life, a guard should be kept over the quality of the milk supply; in short, there should be shown an earnest appreciation and observance of the universal and stern law that self-preservation is the first law of nature. The cities seem to have forgotten it.

Dr. Palmer's evidence as to conditions in no less than 44 Illinois cities of 3000 population or over is sufficiently startling. In some of them disease and death seem to be little less than courted. Not one pays a sufficient salary to the head of its health department to warrant a competent man in devoting all his time to his work.

One city of 59,000 pays \$1,500 a year, "the highest salary paid to any municipal health officer in Illinois outside Chicago." A city of 70,000 pays \$1,200, one of 51,000 pays \$1000, and others pay all the way from \$900 down to \$25! A number pay nothing. The situation speaks for itself!

The remedies for such conditions as exist are well considered and well described in the strong article here considered, though space is, of course, not available for their presentation. They are worthy of general attention and universal adoption. Dr. Palmer has made a distinct and valuable addition to the literature of a subject of present and universal interest.

"NOT TO BE REFILLED"

The greater part of my medicines I dispense myself, but when I write a prescription, I write across the bottom, "Not to be refilled." My druggist tells me he refuses three and four a day, and many patients come back to me after he has refused them thus. The druggist had made and gave to me a rubber stamp reading as follows:

DO NOT RE-FILL

The suggestion may be worth something to the members of the "family."

H. L. HARLEY.

Pleasantville, N. J.

TREATMENT OF COUGH

For irritation: codeine, zinc cyanide, cannabis, iodoform, steam inhalations.

To stimulate secretion: emetin, lobelin, apomorphine. These drugs will moderate congestion.

To arouse sensibility and throw off retained secretions: sanguinarine nitrate, scillitin, ammonia.

Best cough remedy ever used: iodoform, cicutine and hyoscyamine.

For dyspnea: atropine, aspidospermine.

For bronchorrhea: strychnine, cubebin, oil of turpentine, benzoic acid, atropine, colchicine.

For offensive sputa: menthol, phenol, creosote.

For fever: veratrine, aconitine, gelseminine.

As a tonic: quinine.

For general relaxation of tissue, which hinders progress: berberine.

General debility: strychnine.

For coughs due to infective diseases: sulphides of calcium and of arsenic.

For lingering cough: sanguinarine; if secretions are free, add arbutin or benzoic acid.

For hemoptysis: atropine.

Bronchial hemorrhage in children: lime.

M. G. PRICE.

Mosheim, Tenn.

TO STOP NOSEBLEED BY PRESSURE

I have used the following plan for controlling nasal hemorrhage, a procedure that originated with some physician in the East who was subject to the trouble.

Take a condom, put it over the distal end of a medium-sized soft-rubber catheter and tie it to the catheter just the length of the nasal fossæ, so it will not swell out at either naris. Wet the condom and push it into the affected nostril and inflate by blowing through the catheter; then clamp the catheter. The condom is so thin that it fits into all the cavities and controls the bleeding. When you wish to remove it, take off the clamp, which lets the air out, and it can be withdrawn without causing irritation. I think this is easier and better than packing.

E. SMITH.

Lawrence, Kans.

CODEINE AND HABIT FORMING

In a recent editorial in *CLINICAL MEDICINE* the writer told of taking codeine in milligram-doses for a cough, the result being that he started a young codeine habit—and kept the cough.

The rule of giving drugs in minimum doses repeated to effect is a very good general rule, but to make it good, it must be used with brains, and modified to suit different conditions. Especially must the doctor consider the characteristics of the drug he uses.

Now, a habit is formed by repeated doses of one of this class of drugs. No habit can possibly be formed by a single dose. If the dose be increased, toxic or lethal effects may follow, but no habit. On the other hand, a habit may be formed by the smallest doses if repeated often enough.

Supposing codeine to have been the proper remedy in the editor's case, he should have taken half a grain to start with. A single dose would then probably have cured the case. A second gross dose might have been required twelve hours later. If more than three doses of a habit-forming drug were required in any one case, I should say that a mistake had been made in selecting the drug.

These are emphatically remedies for occasional, not for continuous, administration. They should be given "to effect," or not at all. But the aim should be to get all or as much as possible of the desired effect from a single dose, not only to avoid their habit-forming effect, but because only in this way can we get the maximum benefit from the amount of one of these drugs administered. We get a better effect from less medicine by giving it in one massive dose than by dribbling along with minimal doses. CHAS. F. MORRISON.

Apopka, Fla.

A DOCTOR'S PROBLEM: THE JEALOUS WIFE

Will someone please offer a solution, or at least some advice of the problem of the doctor and husband? How can he be a good physician, doing his duty to the sick, if he has a wife that watches him like a Pinkerton and misjudges all his actions and words used in his daily work, everlastingly making insinuations and misinterpreting motives?

Is a doctor obliged to give up his life-work in order to escape from the torment of his helpmeet whose brain concocts imaginary neglect until the worry of it unfits her for society; robs her of the pleasure of caring for the home and her children? Would like to hear from the lady physicians and brethren who have had similar experience.

"TOWA."

[The matter is of more than individual concern. One worthy man was driven from practice and to a drunkard's grave by his wife's unreasonable jealousy. Whenever a woman entered his office the wife would walk up and down before the door; and in a few minutes knock, and when the door opened she would ask in audible tones what "that hussy was doing in there so long"! One wise woman said that when a girl married a doctor she should be deaf, dumb and blind—deaf to the insinuations of jealousy, dumb when tempted to vent it on him, and blind to his faults. Another wise one said that after seven years' married life she found her husband without a fault; and I saw that unconsciously the husband was living up to his wife's idealization. A doctor's wife must not be jealous; and the doctor must not let her be jealous, but insist on his right to demand her implicit confidence because he deserves it. Here the force of manhood must be asserted for the happiness of both.—ED.]

"DOCTOR SHAW"

There is no doubt all of the readers of this criticism know that in the tight little Isle of Britain there dwells one Bernard Shaw, an Irishman. They have probably heard of him as a writer of novels and unusual plays, and will be greatly surprised to know that besides being a playwright and novelist he is also a doctor. Not a doctor of laws, or philosophy, or medicine, but a doctor of society; that is to say—a socialist.

Now, "Dr." Shaw has recently published a play dealing with doctors—not quack-doctors, mental healers, or Christian scientists, but ethical doctors of medicine—in which he has stated some very plain truths in a very forcible manner, along with some fiction. This is quite an innovation, for, while the medical profession has grown callous to so-called "exposures" by mento-religious cultists and quacks, it has been a long time since it has had so gifted and frank a friend to tell its faults, diagnose its disease, and prescribe treatment.

Shaw's great specialty is diagnosis. He sees everything in the nude, stripped of

all superfluous frills. That is the quality what makes him so useful to the present pathological social era. But like some of the regular doctors he depicts, he makes very bad blunders when he comes to treatment—and if humanity ever attempts to put any of his individualistic and metaphysical theories into practice, its sudden demise will have been the direct result of its credulity.

To be specific, "Dr." Shaw declares that doctors of medicine are not always conscientious in their treatment of human ills and not scientific in administering to those ills. But neither is Dr. Shaw, else he would not adopt the foray of a paranoiac's imagination as a basis upon which to rejuvenate society, especially when we have scientific knowledge upon that subject, and know full well the reason for society's present status and the necessary changes that must occur before any Ponce-de-Leonian revivification can come about; and this knowledge is in direct opposition to "Dr." Shaw's therapy.

For instance: In "Man and Superman," Shaw tells us the way to right existing social conditions is to breed a race of supermen (with Shaw for brood-master, let us suppose, else the scheme could not be carried out) who will have conquered the world and become so far above the present laws, morals and religions, as to make all these institutions superfluous; when they will atrophy from loss of function and become but vestiges, to be explained only by learned social pathologists. The scientific explanation, on the other hand, shows supermen to be figments of an opalescent vision, and the needlessness of morals, laws, religions, etc., a result to be obtained by an economic evolution whereby the method of obtaining social existence will have been simplified and justified into a classless society where class scarecrows are no longer used. In fact, Shaw, when planning for the future, only states what we have today, for we really have supermen who are immune from all laws and customs that the majority of people are compelled to obey.

Now, what is the difference in foolishness between advising Biddy O'Toole, over her washtub, that what she should do to cure

her heart disease is to take carbonated baths, eat champagne jelly, and spend the season in the mountains, as Shaw says the doctors do, and to advise her, in order to redeem the world, to propagate "supermen" who will be above economic law, as Shaw does. What is really needed in both instances is an environment that first will not compel her to labor beyond her strength; and, second, that will educate her children and grow them into thoroughbred humans—not imitations of savage gods.

Such is the science of our socialistic critic; but, as he himself says, we are all tarred with the same brush. If that is the case, what benefit arises from the pot calling the kettle black?

If the scientific attitude is to be unscientific, why talk about science at all except as a mental gymnastic? It seems that it is not necessary for socialists to be scientific on a broad plan. Take Upton Sinclair as another example. He has grown wrathful, eloquent, and pathetic in turns over the fact that so many people are in a chronic state of starvation, and now he comes out with the statement that the universal panacea for human ills from chicken-pox to syphilis, including tuberculosis, is starvation.

Who is responsible for this condition of affairs? The people—because the people are the source from which all idealizing springs. You can not blame Shaw. There has never yet been a human who could withstand temptation; and he has to live. Given an eager public ready to pay to learn of our capitalistic conditions and a private social practitioner eager to make his living by diagnosing our capitalistic conditions and prescribing treatment, taking as his vehicle a clever drama keen with satire and ready wit, and can you dream of any other results than those we find at present among some of our literary socialists?

What shall we do to offset this conscienceless playing with our desire for amusement? There are just two things necessary: First, socialize the socialists. Second, every person make a thorough and painstaking investigation of past records of development, the present status of existing conditions, and the logical future

attainment. They will be able to get many helpful works along this line cheap. One can even purchase Shaw's Prefaces at fifty cents per, to each one of which a play is attached for good measure. By obtaining the first requisite, we shall make it unnecessary for these literary geniuses to exercise their wonderful powers of delineation and speculation to obtain a livelihood by selling the results upon the market. In other words, by doing away with our literary men as tradesmen, we shall eliminate their commercial proclivities. Under the second advance, by everyone becoming conversant with the economic laws of change, we shall have reached a position as a race where professional social doctors will be superfluous (those pretentiously wordy but not profound quacks, hand-tooled, and issued every little while by the Roycrofters unthinkable) and obtained an intellectual eminence hitherto unknown.

G. M. HAWKINS.

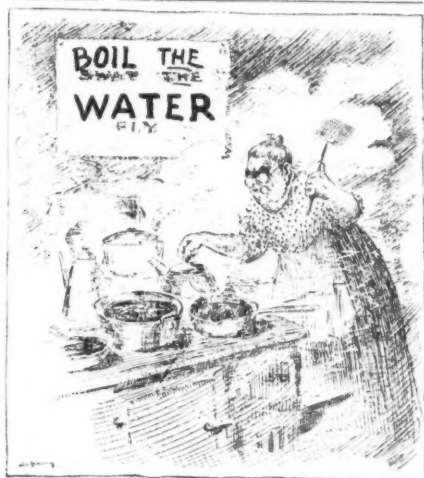
Seattle, Wash.

SWATTING THE FLY

The "swat the fly" propaganda that is at present being carried on throughout the country finds its best and most sensible expression in the "Sanitary Spelling Lessons" published in *The Bulletin* of the Chicago School of Sanitary Instruction, Department of Health, for August, 1911. Thus, among other things, the editor writes: "Garbage and moisture spells decomposition. Decomposition and flies spells danger." The injunction to swat the fly, however necessary it may be, is, when we consider the matter properly, only paramount to locking the barn door after the mare has been stolen. Flies, as everybody knows, find a breeding place in garbage, manure, and other decomposing material, such as dead-ripe fruit. It does not need proof that flies are most numerous around garbage cans, on manure piles, on fruit stands which are not kept clean, and in dirty kitchens, while in places which are scrupulously clean, as well as in covered garbage-cans, or manure piles which have been treated with kerosene or other substances obnoxious to flies, these little pests do not

manifest their presence to any considerable degree. In these places they deposit their eggs and produce in numerable new flies to keep up the nuisance.

"Life Is Just One D--- Thing After Another."



As seen "Down South"

"It is, then, simply another instance of prevention being better than cure, and far better than swatting the flies would it be to prevent their being propagated by the cleanly disposal of kitchen waste, by cleanliness in regard to garbage-cans, which invariably should be covered, in the treatment of manure piles with such substances as prevent the flies from breeding, and, in short, in all precautions which prevent the flies from multiplying by depriving them of the proper breeding-soil.

"If we extend the swat-the-fly gospel in this manner, it will assume a common-sense basis and a promise of success. If, however, we limit our efforts to removing the effect and leave the cause undisturbed, we shall never succeed in eliminating this fruitful source of the spread of contagion."

INGROWN TOE-NAILS. GONORRHEA

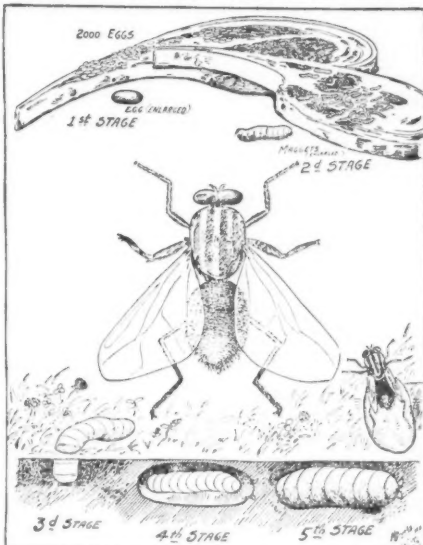
Dr. Breakstone's article on the treatment of ingrown toe-nails (See Sept., p. 960) looks better on paper than to experience it. I might say that in regard to a lot of our treatments. If we had to submit to that operation first ourselves, the other

fellow would not get it. If any of the brethren have ingrown toe-nails, I would suggest my own treatment to be tried first, and I hope it will save you the experience I personally have had.

The nail will grow out and in breadth but the skin will adhere to the nail, and if pulled out, becomes dry and tough. This binds the nail at the matrix and crimps it—rolls it under. Then the nail is not only too narrow to cover the flesh but the sharp edges cut into the flesh. What shall we do?

Keep the skin well pushed back on the toe and put a little cotton under the sharp edge. If infection has set up, one drop of guaiacol on the cotton will give relief. The nail will grow out perfect, whereas, if you cut it out and don't take the same care as I have outlined, you will have a bad-acting nail the same as I have. The shoe is to blame for keeping the toe sore.

HOW TYPHOID FLIES ARE MADE



First stage: Fly lays about 120 eggs on decomposing animal or vegetable matter, preferably manure.

Second stage: Eggs hatch into maggots in one day or less.

Third stage: Maggot crawls into ground when about five days old.

Fourth stage: Surrounds himself with shell, in which he lives about five days.

Fifth stage: Emerges from ground with rudimentary wings, but wings develop very rapidly and he's soon ready for business.—Chicago Health Department Bulletin.

For subacute gonorrhea try the following solution with which to irrigate with return flow:

Salicylic acid grs. 20
 Boric acid dr. 1
 Water gal. 1

For the chronic gonorrhea (or morning drop) try thymol, 30 grains, dissolved in a little alcohol, then add to one gallon, following the irrigation by massage of the prostate gland.

S. E. PEDEN.

Centralia, Ill.

THAT OBSCURE CASE

In reference to the case reported in the September number, page 997, by W. E. D., Iowa, I would venture the following opinion. The child started with a mild enteritis, which was aggravated by calomel in repeated doses. This, together with the arsenite of copper, produced toxic symptoms and death. You have a typical picture of arsenical poisoning. Too much drugging for a child of twenty-two months.

H. R. FARINGER.

Mount Holly, N. J.

[See the article on pages 1202-1205.—Ed.]

INGROWN TOE-NAIL

I have read with great interest Dr. Frazier's criticism in the October CLINICAL MEDICINE. There is no doubt that mutilation, if it is unnecessary, is criminal. In my article, I mention that scraping the surface of the nail occasionally with any sharp instrument will sometimes *relieve* ingrown toe-nail. The doctor says that it is necessary to scrape the nail occasionally. It is necessary almost daily, if the case is of long standing, and then what happens to the nail? Either hypertrophy or necrosis, both of which are great annoyances, if not exceedingly painful.

I have only recommended removal of the part of the nail where the case has come to infection of the toe, with great suffering by the patient. Inasmuch as we cannot stand if our feet pain us, it certainly is wise to do something to cure, and not merely relieve. There is no mutilation whatever in the operation advised in my article.

I can say that circumcision and appendectomy, and other such operations, can be put in the same category. The conditions for which these operations are performed are very often easily relieved, yet we see a great deal of suffering, yes, even death, if we allow the pathologic conditions of the organs involved to continue. Is it better to suffer, or be treated constantly for a condition, than to do a radical operation which might cause some slight mutilation? I do not think that anyone would reason this slight mutilation to be criminal. It seems to me much worse to have a patient undergo continuous pain and inconvenience than to let him suffer some slight mutilation.

BENJ. H. BREAKSTONE.

Chicago, Ill.

"OBSCURE INTESTINAL DISEASE"

Under this caption W. E. D., Iowa, describes (Sept. CLINICAL MEDICINE, p. 997) his treatment of a case of obscure intestinal trouble and asks what others would have done under similar circumstances.

The doctor in question is evidently sincere, so I will not in the least blame him or his treatment or criticise him in a spirit of harshness, but will simply ask the question, Would not a treatment like that described almost "lay out" a well-nourished mule, to say nothing of a sick infant 22 months old?

I have to deal with these cases daily. I find infants' temperature first time frequently 105 degrees and over, and at first sight it is often impossible to make a positive diagnosis, so I am often inclined to call them "obscure intestinal disease."

Only yesterday I was called to a baby, 10 months old, with 105° F. temperature, greenish stools, pulse 180—evidently a very sick child. I prescribed for him (the treatment I will give presently), only to find him, the next morning, smiling and temperature down. Last night I had another one-year old baby: temperature 105°, vomiting, passing greenish feces with small specks of blood; he was crying continually and throwing head back. I saw him just a few minutes ago, and if I am

not badly mistaken the crisis is past and the infant is on the road to recovery—a great consolation for the prostrate father, who at the prospect of losing his only child has been nearly hysterical all day; the mother not much better.

The treatment as instituted by me, and probably by thousands of others, is first to calm the parents, that is, by my own demeanor and actions, I positively show them that I am master of the situation. This, of course, you cannot do if there is any doubt in your mind regarding your own qualifications. The fears allayed, I go about my business of administering to the sick child.

In a case with the symptoms described by W. E. D., say of "obscure intestinal disease" in an infant of 22 months, I should have given the same treatment as I gave the first child of yesterday mentioned. I had a tub of lukewarm water fetched in and ordered the mother to put the naked child in the water and gradually and slowly wash it, adding a half pint of cold water every few minutes until the water was cool, or about the ordinary temperature of hydrant water in the month of September. After a good wash, lasting 15 to 20 minutes, we dried the baby with an ordinary towel and put him to bed, dressed in a thin nightgown. I then gave calomel, gr. 1-2, with soda, every two hours until the bowels began to move; and also a mixture of tincture of aconite and potassium bromide in simple elixir, a dose every hour or two. The next morning the child was better, temperature down, no pain, no crying.

The second child went through the same procedure as to bathing, but instead of calomel he got one desertspoonful of aromatic castor oil, also 2 1-2 grains of aspirin every two hours during the day. The oil was to be repeated every six hours until the bowels moved. Tonight he was better. If calomel or oil had not acted I might have irrigated the infant's rectum with water and glycerin or simply with cold soapwater, as I sometimes do.

In the particular case that the Doctor treated I might also have given massage to the extremities. Now, of course, as we do

not know the diagnosis in this case of the 22-months old child, the pathologic condition here might have been entirely different from the cases here related by me; but that does not matter greatly—a treatment similar to the above is what I should have given under similar circumstances—and that is what the doctor asks for.

But the idea of giving this tender infant calomel, sulphocarbolates of zinc and soda, arsenite of copper (which would of course color the stools, but not necessarily require doubling of the dose), besides aconitine, veratrine, and digitalin; waiting a while and then repeating; again waiting and then doubling doses; then inaugurating hot baths, followed up for two days with woolen cloths wrung out of magnesium-sulphate solution, and then give epsom salt internally, besides some more calomel and castor oil, arsenite, sulphocarbolate, inunctions, emetine, quinine, and echinacea, hypodermic injections of glonoïn and strychnine! Gentlemen, I ask again, how could this poor infant ever recover? Why, I say with conviction, that babe had no earthly show for his life.

I am inclined to believe that in this case, if absolutely nothing had been given, only tepid and cold ablutions and a little massage of extremities, this sick child might have recovered.

H. G. HENRIKSEN.

Newmarket, Minn.

[Seems to me Dr. Henriksen draws his indictment against W. E. D. just a bit too strong. The latter didn't give all the different remedies mentioned at the same time, and the dosage, for the most part at least, was moderate. As many of us might have done under the circumstances, he seems to have stumbled around in the dark a bit, meanwhile just "trying things," and it isn't to be wondered at greatly if he tried too many. But suppose we put the shoe on the other foot—or put Dr. Henriksen in the "witness's box." Might we not criticise *his* treatment in spots—for instance, giving aspirin in 2 1-2 grain doses to a one-year old child?

However, as we still are uncertain as to the diagnosis of that child's ailment, we

shall have to rely on "general principles," until some one teaches us a better way or submits more light. "General principles" call for careful, gentle cleansing of the alimentary canal, from both openings; intestinal antiseptics, cautious feeding, and equalizing of the circulation. You know how we should go about it to get these results!—ED.]

IS IT POLIOMYELITIS?

Dr. W. E. D.'s article, in the September number (p. 997), on "Obscure Intestinal Disease", calls to mind a recent case in which two able physicians as well as the writer were until near the end in doubt as to the diagnosis.

The patient, age 19, of imperfect mental development, but splendid physical constitution, came first to my office on July 4, complaining of soreness in both sternomastoid regions, the muscles being somewhat swollen and tender. There was no coryza or tonsillar irritation, apparently, more than ordinarily, his tonsils being somewhat hypertrophied. I ordered at that time hot compresses, and prescribed aspirin and phenacetin, 10- and 5-grain doses, respectively, combined in powder, six doses to be taken three hours apart. On the 5th I had report of some improvement. (A laxative had also been administered.)

On the 6th I was called to see him again. I found him in bed, his temperature 103° F., tongue clear, no abdominal tenderness, no pulmonary, cerebral or joint symptoms more than would be coincident with the fever range, pulse slow (running 100 to 105), full and soft. I put him on intestinal antiseptics and a fever mixture, giving instructions to sponge with warm water every three hours if the fever did not abate.

I withheld diagnosis. On the 7th there was some borborygmus, tongue white-coated, temperature persistently 103° to 103.6° F. until evening, when at about 8 p. m. it abated to 102.5° , but after midnight ran to 104 degrees, and the patient had a sleepless night. On the 8th there was a little general abdominal tenderness; in the afternoon delirium.

I now made a provisional diagnosis of typhoid fever, and because of the tongue being clear and the patient complaining more of the sternomastoid tenderness (which had not been so much in evidence in past two days), asked for counsel, saying that the diagnosis was doubtful, typhoid being as near as I could arrive at, at this stage of the disease. The bowels had been loose, which I attributed in part to the treatment. The characteristic typhoid stool-odor was not in evidence. Dr. C. of Walville saw the patient on the 9th, and on the 10th Dr. T. of South Bend was called with us.

In the meantime the patient had become wildly delirious and had to be restrained. Typhoid symptoms had cropped up in the shape of tympanites and diarrhea, and a dry, brown tongue, temperature rising to 105.4° F. Stools still lacked offensive odor or mucous character. There had been no vomiting, except on one occasion following a stiff dose of calomel.

The patient on the 9th became semicomatose and speech was thickened markedly; also complained of numbness of right hand. So we surmised that the trouble was basilar. Later in the day there was beginning palsy of tongue and face, and the patient gradually sank into deep coma, with vesical and sphincteric incontinence, dying on the morning of the 10th. These symptoms, recorded in this paragraph, developed after the departure of Drs. C. and T.

This, to my mind, was a case of poliomyelitis involving the upper portion of the cord and base of brain. Two years ago, there was a parallel case in this community with an almost identical course, occurring in a child of 9 years.

My experience with these unfortunates includes 8 cases in 17 years' practice and consequently I do not wish to pose as a critic of Dr. W. E. D.'s case, but suggest that it seems to have had some of the phenomena which mystified me in the case recounted. The diagnosis of poliomyelitis is not always plain, and some writers expressly state that the diagnosis is frequently not made before onset of the paralysis—and that the paralysis does not always de-

velop. Indeed, they assert that if the patient survives the onset of paralysis he will probably recover.

Dr. T. and Dr. C. with myself tested the reflexes on the morning of the 9th without finding any loss of tone, and the sphincters were paralyzed in four hours afterward.

Of treatment, I can say that I am sorry we did not use urotropin earlier in the disease, and that in future doubtful cases I shall do so while the case is still in the fog. Of other measures employed, bromides and chloral for nerve excitement, ice-bags to head and spine, counterirritation and febrifuges, all in heavy doses, were alike unavailing in the case of this unfortunate, the symptoms progressing unchecked.

I think that, as we learn more about this dread malady, we shall find more patients who had been put in other classifications to have been suffering from acute anterior poliomyelitis, bearing in mind that there are many complete recoveries.

E. W. S.

Dryad, Wash.

[I am glad that E. W. S. has suggested the use of hexamethylenamine (urotropin) in anterior poliomyelitis. There are good theoretical grounds for believing it of value in this disease, though the clinical experience with it has, thus far, been rather unsatisfactory. Was W. E. D.'s case one of anterior poliomyelitis? We confess that we do not know—but it certainly is to be considered a possibility.—Ed.]

ARBUTIN FOR DECOMPOSITION OF URINE

In speaking of arbutin, you do not mention what I consider one of its most important therapeutical properties: the prevention of decomposition of urine in cases of residual urine. For several years I used urotropin in such cases, with good success, and then I commenced the use of arbutin for the same purpose, with like success. I am now alternating these two remedies, using one for a few weeks and then the other for a like period. Both possess the power of preventing the decomposition of

the urine in a similar manner. I do not consider it advisable to continue the uninterrupted use of any remedy for any length of time. Arbutin increases the diuretic functions of the kidneys. I do not know what (if any) injuries the kidneys may receive from overstimulation from this drug. Its use greatly increases, at times, the secretion of urine.

M. R. CHAMBLIN.

Decoto, Calif.

[So far as we have been able to discover arbutin is nonirritant to the kidneys. We have used it in large and small doses, but without any subsequent harm or discomfort that we could discover. Dr. Chamblin is absolutely right as to its value.—Ed.]

CONDENSED PELLAGRA FACTS

Symptoms.—It gives rise to seven kinds of ills: It drives one crazy. It drives another into the water. It draws one backward. It makes another walk bent. It gives another vertigo. It gives one ravenous hunger. It causes rashes on the skin.

Very contradictory symptoms are often seen:

EITHER	OR
Loss of appetite	Voracity
Somnolence	Insomnia
Mutism	Loquacity
Constipation	Diarrhea
Hydromania	Repugnance to water
Immobility	Excessive mobility
Mydriasis	Mycosis
Salaciousness	Impotence
Stupor	Mental excitement
Marasmus	Flord health
Apathy	Activity

Diarrhea.—Bowels, move many times a day; thin, greenish, yellowish, offensive, bloody mucus; may be involuntary; obstinate hemorrhages. Persists through spring and summer months, with slight recrudescence in October.

Alimentary symptoms.—Burning in throat and stomach. Anorexia. Mouth congested; buccal mucosa red and covered with small ulcerated areas. Tongue fiery-red, papillæ prominent. Ptyalism, with tenacious, white ropy saliva which hangs in strings from upper to lower teeth.

Eruption.—Dorsal aspect of hands a deep-purplish color, covered with dry, hard,

cracked epidermis; line of demarcation at wrist where sleeve ends very distinct; burning and itching; fissured between fingers; desquamation of dry, bran-like scales.

Nervous system.—Spirits depressed; melancholia, dementia; delirium. Vertigo a prominent symptom. Occasional mutism.

Temperature and circulation.—Temperature less than 100° F.; in bad cases 102° to 108° F. Pulse 80 to 100; rigid, incompressible, like whip-cord. Air-hunger late. Respiration failed first.

Treatment.—Withdraw all fats and oils except castor oil. Clean out with calomel and salines. Symptoms are worse when bowels are checked, and better when cleaned out. Calcium sulphide has acted like a specific; 1-2 to 2 or more grains thrice daily. Under its influence stools reduced to normal; redness of tongue fades; ulcerations heal; hands clean off.

Use no ointments locally. Alcohol is contraindicated, and intensified symptoms. Insomnia and insanity relieved by clearing bowels, castor oil used. Trional, 5 grains, produced sleep, repeatedly, within five minutes. For pain in stomach and bowels, morphine or paregoric, though relief may follow enema of saline solution. As intestinal antiseptics, used zinc sulphocarbolate, bismuth subnitrate and hydrastis, with ginger and lactated pepsin. Iron, arsenic and strychnine as tonics.

Diet.—Milk, cereals, vegetables, lean meat, shredded wheat, oatmeal, eggs, chicken, fresh buttermilk. Feed generously.

M. G. PRICE.

Mosheim, Tenn.

PELLAGRA THOUGHTS, AND A CASE

Among the late theories about the origin of pellagra are that rancid fats, as suggested by Dr. C. S. Pixley, or semi-drying oils, as advanced by Dr. G. C. Mizell, are causative factors. These two hypotheses were discussed editorially in THE AMERICAN JOURNAL OF CLINICAL MEDICINE for August. There has not been enough evidence produced to cause me to doubt that spoiled corn has given rise to this disease.

To quote from "Pellagra" by Dr. A. Marie (translation by Drs. Lavinder and Babcock, page 120): "In concluding his experimental work, Lombroso states that 'with such evidence as has been submitted, it does not seem longer possible that the specific cause of pellagra can be doubted, and it is certain that the etiology of other maladies can present documents neither more numerous nor more convincing'." On the same page I read: "He has, he tells us, spent more than twenty-five years of his life at it" (i. e., labors on pellagra).

One of the objections to the corn-theory is that cases have developed in subjects who have used, as they thought, a good home-grown corn. "It is worth while to note here, however, the important fact that the gross distinction between sound and spoiled corn is, in the opinion of many able observers, by no means always easily determined." ("Pellagra," p. 123.)

Why may not all of these theories be correct? Why not spoiled fats? Corn is rich in this substance, especially in the embryo, which is estimated to be from one-third to nearly two-thirds fat. While the cotton products are used very extensively for cooking purposes and for feeding milk-cows, ninety percent or more of the cattle in the cotton-section are fed on cotton products. Now, the point that appeals to me is, that these foods are made from damaged material. I have asked a number of people (some of whom operate gins, others that buy and sell cotton-seed) about the condition of the seed. The answer always came that spoiled or damaged seed was the rule and not the exception. At the gin they are likely to be thrown in one pile, where they soon will "heat." Or they may be loaded in a car, where they will probably go through the same process before reaching the oil-mill. Could this change the seed enough to cause the trouble?

Here is the report of a case that may be of interest: Patient, a negress, about 40 years old; mother of several children; had "always been healthy." I saw her first on June 20. She had walked about two miles to see a doctor, about a week before. He told her she had pellagra and gave her medicine. She went home and to bed, then

called me, saying she wanted someone to see her every day.

I found the patient's temperature normal, pulse about 100. Constipated, bowels had not moved for several days. Mouth sore; the typical dry dermatitis in spots on the back of hands and on wrists. A peculiar indefinite condition that she described as taking her by "spells" and "running all over" her. Sore throat, also "piles," bothered her at times for several weeks. Later on she was also bothered with mucus "coming up" in the throat. At times she would nearly choke, when she would get relief by vomiting.

I cleaned her out with compound cathartic pills and magnesium sulphate. Left a solution of the sulphocarbolates. Ordered frequent bathing with epsom salt and carbolic acid dissolved in warm water. At times I added the sulphocarbolates and bismuth subsalicylate. This was when her bowels were moving too freely. Used epsom salt freely. Used various mouthwashes, but with little or no effect. Belladonna had little effect on the ptialism. Used calcium creosote instead of the sulphocarbolates at times—this for psychic effect. [We find calcium creosote mentioned in "Riedel's Berichte," but nature not described.—ED.] She appeared to improve for about four weeks. Sat up some.

On July 20, one month from the time I first saw her, she had a chill, and her temperature was 103° F. This was the first time I had found her with fever. Bowels moved often, showed traces of blood, but were not very offensive. Mouth very bad. Dermatitis spreading and had assumed the "wet" type. Gave her calomel, followed by epsom salt. Gave two tablets of echinacea together with the calcium creosote every two hours. Also gave Fowler's solution (which she had been taking at intervals) three times daily for about a week; then gave chromium sulphate four times daily.

About this time someone told her to take sulphur three times daily. I cannot say how often or how consistently she did this. She had improved quite a good deal before telling me. I knew she was using sulphur, at times, for her mouth. All

symptoms disappeared rapidly. Hands almost well at this writing (Aug. 14, 1911). A few days ago I put her on calcium sulphide, echinacea, and chromium sulphate, four times daily.

Corn and cotton products were prohibited, but I permit her to eat almost anything else.

H. D. KEMPER.

Morrow, Ga.

TENNESSEE PELLAGRA COMMISSION REPORTS

Sometime ago, a commission, consisting of Drs. Krauss, Rhea, and Brooks, was appointed to investigate the pellagra situation in the state of Tennessee. This commission has just submitted its report to the state board of health. It has visited 64 out of the 96 counties of the state and found pellagra present in 58 counties. A large number of cases was investigated. The conclusions of the commission are epitomized as follows:

1. The data gathered in the field show that first cases, as a rule, spring up in the most remote places. While some of these have been imported from other states, quite as many give no history of exposure to any person or place infected with pellagra.
2. The disease has appeared rather simultaneously at widely different points—not in any way related to each other, either as to avenue of infection or as to similarity of local conditions.
3. The epidemic of pellagra in the United States has appeared in disregard of all laws of epidemiology. There has been no route of travel or sequence of development characteristic of infectious diseases.
4. While first cases may appear in disregard of any system of regularity, a large number of cases have apparently become foci for the development of secondary cases.
5. Such secondary appearance fails to sustain either view of the etiology of the disease to the exclusion of the other. Such exposed persons may partake of the infected or poisonous food, contract the disease through the bite of an insect or may become contaminated in some other way.
6. In some counties there is as yet no evidence of secondary cases, for in one instance the first case appeared seven years ago and this patient is now living on the bank of a stream.
7. Approximately 95 percent of cases admit the use of corn meal in some form, and while many are tempted to mislead, there seem to be authentic cases of abstention from corn in all its forms. No case is reported of the complete absence of corn meal from the premises for a term of years.
8. The prodromal stage, or period of incubation, seems to vary greatly, but is apparently quite long. The development of the disease appears in all cases to be gradual. While diagnostic symptoms may

appear spontaneously, they must follow a progressive disease of the spinal cord.

9. A large proportion of cases appear in the wake or in the course of some other disease.

10. While this is a disease of poverty and bad hygiene, many cases have appeared in well-to-do families with good hygienic surroundings.

11. Arsenic, especially the arylarsonates, appears to have a specific curative effect when begun early and persisted in.

12. Failure to seek medical relief and especially the persistence in bad hygiene and food usually results in death or insanity sooner or later.

13. The amelioration or disappearance of symptoms in cold weather suggests a strong climatic influence upon the course of the disease.

14. Pellagra appears to be a gradually developing, cumulative intoxication of the central nervous system, of indefinite prodromal stage, of seasonal periodicity, the symptoms of which may appear suddenly during the spring, summer or early autumn.

15. There is no proof of its immediate transmission from person to person, though it may be a house infection.

16. Its phenomena can be explained on grounds other than infectiousness, and they appear to favor the hypothesis of food transmission. The theory of insect transmission does not fit the early isolated cases so frequently found.

17. It is possible that food-cereals, and especially corn meal, serve as vehicles of transmission, and that the infection exists in granaries and elevators, and that the obstacles to its transmission in this way are great enough to account for the relatively few cases of the disease.

18. It is imperative that the public be instructed in hygienic living with special reference to house screening, sanitary privies, properly cooked wholesome food—eaten as soon as prepared—and that medical advice be sought on the appearance of the earliest suspicious symptoms.

19. We need institutions for the care of these pellagrins.

PELLAGRA IN KENTUCKY

At the request of the state board of health of Kentucky, the United States Public Health and Marine Hospital service has conducted an investigation of three counties of Kentucky. One hundred and forty cases were investigated. The report concludes as follows:

Practically every case occurred in families in poor economic circumstances and living under rather unhygienic conditions. Many of them were in families of coal miners. On account of the topography of the country, the most suitable locations for homes are along the streams, consequently a large percentage of the inhabitants live along water courses. In every instance where I was able to visit the pellagrins at their homes I found them living within 500 or 600 yards from a stream. The question of diet was not gone into thoroughly, but in every instance where I was able to make inquiry regarding the diet of the pellagrin, it was learned that corn products had been one of

the main articles of diet. In fact, corn products are used extensively by nearly all of the people in this section.

I was able to find only sixteen pellagrins who were then living at the homes at which they were living when they first noted the symptoms of the disease. Upon inquiry as to the water supply in these instances, it was found, with only one exception, to be either surface water from branches or creeks or water taken directly from neighboring mountain springs.

Regarding the race, sex and age of the pellagrins in this series, I have constructed the following table from the data pertaining to these points: White females, 104; white males, 28; colored females 7; colored males, 1; total, 140.

ETIOLOGY OF PELLAGRA

In *The New Orleans Medical Journal* of September, 1911, Dr. Thorington presents evidence to combat the theory that pellagra is due to eating moldy corn. He believes that the disease is really transmitted by the bite of the mosquito. In support of the parasitic origin of the disease he submits the following facts:

First, it appears to be infectious. Dr. J. M. King, of Nashville, Tennessee, reports eleven cases occurring in an institute of charity at Nashville as the result of one case having been brought there.

Second, the clinical course of the disease closely conforms to that of other parasitic diseases, and not of that caused by grain poisoning.

Third, there is a periodicity about the development of pellagra, the spring causing it to become active after having passed a stage of latency during the cold weather.

Fourth, its geographical distribution—tropical and subtropical—is that of other diseases of parasitic origin.

A GALACTENZYME BABY

I am sending you a photograph of a child which might well be called a "galactenzyne baby."

When I was first called to see her she was the most hopeless bit of humanity one could imagine. She was a year old and weighed *seven pounds!* Looked like a piece of dry parchment stretched over bones, with two large appealing eyes giving out a haunted look. She had been fed on nearly every kind of prepared food—certified milk, milk-commission milk, etc. Everything was vomited with "dispatch," if not with "neatness."

Several physicians had prescribed for her, with no apparent good results, and my

own treatment at first was no better. She simply did not retain or digest anything. It looked as if every hour would be her last.

It then occurred to me to try galactenzyne—which I did by putting one tablet (crushed) in a pint of fresh bottled milk and letting it stand a day. The first feeding was retained. All vomiting stopped within two days, and the way that baby began to grow and take on fat beat anything I have seen in a long time.



Dr. Clark's "Galactenzyne Baby"

As soon as she began to pick up I had the family give her half a tablet, crushed, in water, after each feeding. Giving the tablet after each feeding seemed to give just as good or better results as putting the tablets in the milk and letting it stand a day. You ought to see her father smile as he calls for fresh stock (a bottle of 100) as he does regularly as needed. The child now eats everything suitable going, but they want the tablets in the house.

This picture was taken some months after beginning this treatment. I only wish I had taken one when I first saw her. But I didn't, so similar mental pictures, hanging in the mental galleries of the profession, must suffice.

Since this experience and during all last summer, I have given this same treatment to all children suffering from indigestion and malassimilation with better results than I have ever had before. It is exceedingly rare to find a child who cannot digest pure cow's milk, not sterilized and not pasteurized (but properly diluted for age, of course), if galactenzyne is given as I have suggested. Be sure to use enough—too much is impossible.

Incidentally, I want to say that adults who cannot take milk with their meals, because of intestinal indigestion, will have no trouble from gas ("bloating") if they take two or four tablets of galactenzyne after eating. It is my sincere belief that all physicians, especially those treating children's diseases, should become acquainted with galactenzyne.

J. A. CLARK.

Chicago, Ill.

GUAIACOL INUNCTIONS IN PNEUMONIA

IN THE AMERICAN JOURNAL OF CLINICAL MEDICINE for April, Dr. Wolverton reports two hundred cases of lobar and bronchial pneumonia treated by him, with the loss of but six patients. A fine showing, certainly, and proving that the treatment employed was not of the do-nothing sort, but active and efficient. Speaking of the local measures used, the doctor says that since he has begun the use of guaiacol inunctions (equal parts of camphorated olive oil and guaiacol) he has not lost a case of lobar or bronchial pneumonia. He applies the mixture to the entire chest every two to four hours, profuse diaphoresis with fall of temperature taking place in a short time after inunction.

Following Dr. Wolverton's advice, I wish to report an experience in a case of bronchopneumonia. I was called, April 30, to see Mrs. G., aged 56, who for the past three weeks had been suffering from a severe cold and bronchitis, which had failed to yield to home remedies, but gradually grew worse, when it was decided to call a physician.

I arrived about 11 a. m. Found temperature 102° F., which increased as evening

came on; pulse 100; respiration 30; a distressing cough, dry and harsh; coated tongue; insomnia; patient in an irritable and highly nervous state; physical signs pointing to bronchopneumonia. I prescribed an initial "clean-out" with calomel and podophyllin, followed by saline laxative, dosimetric trinity, later changing to the defervescent compound for fever, and giving codeine, emetin, and calcein for cough.

I saw the patient again on May 2. Condition improved; cough loose; expectoration tough; mucous flecked, with blood at times. Improvement was slow but steady, until Sunday, May 7. Up to this time no local treatment had been used. The temperature on the date mentioned was 100° F. at 12, noon; large and small moist râles all over lungs, breathing rough and bronchial.

I now concluded to use the guaiacol inunction as recommended by Dr. Wolverton, so applied the oil to the entire chest and watched the result. In a few minutes the patient was in profuse diaphoresis. At 2 p. m. the temperature was 99° F. and the patient comfortable. I then left, but directed that, if the temperature rose and the skin became hot and dry, the inunction should be repeated at 6 p. m. At 5 p. m. I was told by 'phone that the patient had had a hard chill, and that she continued to cool off until rigor set in. Saw the patient next morning. She was fairly comfortable, apparently having suffered no ill effects from her experience of the previous day. At present writing she is running a slight temperature, which is gradually declining and convalescence seems to be well established.

Now, is this the invariable result of the guaiacol inunction? If so, given at intervals of two to four hours, the patient would be kept in a constant rigor. What was the trouble in the case above described? What are the limitations in the use of the guaiacol inunctions in pneumonia? The measure seems to be potent for good or harm. Tell us, please, when and how to use it.

Further, in *Ellingwood's Therapist* for April, Dr. A. S. Thompson reports a case

of pneumonia aborted in a child 14 years old, in which, after the initial calomel clean-out, the defervescent compound and dosimetric trinity, with calcein for cough, were the dominant remedies, Dr. Ellingwood, commenting on the treatment in this case, says, "There is no need whatever for a physic in these cases." Again, he says, "Digitalis was certainly not called for on the first day, and it may retard the influence of veratrine when that remedy is demanded." From which, it would appear that he objects to the digitalin in the defervescent compound as incompatible with the veratrine. Is such the case? Does the digitalin in the defervescent compound retard the influence of the veratrine? Is it best in these cases to give aconitine and veratrine together, omitting the digitalin, to secure defervescence?

Dr. Ellingwood says, further: "It is usually best to continue the aconite, and wait until the temperature is at least 100 degrees, before giving strychnine." This in criticism of the statement that when the temperature declined to 102.5° the defervescent compound was replaced by the dosimetric trinity. In the doctor's opinion, therefore, the strychnine in the triad combination is not compatible with the best interests of the patient in these cases. Is it so? Is the strychnine in the one and the digitalin in the other incompatible in these combinations with the other elements, rendering the preparations undesirable in pulmonary diseases?

J. LUTHER SHEPPE.

Mt. Sidney, Va.

[For a discussion of the action of guaiacol we refer the reader to the article by Dr. Roberts on page 1172, this issue, and the editorial comment thereon. The peculiar fact that guaiacol, when applied to the skin, acts as an antipyretic, has been referred to frequently in *CLINICAL MEDICINE*. The objection to this method of using the drug is exactly that to which Dr. Sheppe refers: it frequently produces severe and possibly even dangerous chills—though these are not an invariable sequence, and if Dr. Wolverton's experience is a safe guide even these symptoms are not greatly to be

dreaded, since he lost no cases of pneumonia when the drug was used. However that may be, it is the part of wisdom to make small, well-diluted applications at first, and gradually increase the quantity of the drug, if indicated. In the asthenic cases, or in the very young or aged, we should not advise the local use of guaiacol.

We must take exception to our good friend Ellingwood's advice anent the "clean out" in pneumonia. In our opinion it is imperatively needed in these cases. Certainly a clean intestinal tract is just as important as a clean, frequently bathed skin, and if you didn't provide for that you and the good nurse would have a falling out. We want to limit the absorption of putrefactive poisons from the bowel, which may add so much to the severity of the disease; and we want to prevent the formation of gas, which is an important mechanical factor; and, finally, we want to drain the blood away from the congested lung. All these things catharsis helps us to accomplish.

There may be cases of pneumonia where digitalin is not indicated. For instance, we do not always give it to children, in whom the cardiac resistance is generally good. But as a rule clinical experience has shown that the remedy *does* help, and that substantially. We want the cardiac tone which this drug can give, and we need it practically from the beginning; we do not want the arterial contraction of digitalis, with consequent rise of blood pressure, and this the combination with aconitine or veratrine obviates, bringing about a nicely balanced vascular equilibrium.

We certainly should not give veratrine and aconitine together *without* the digitalin, which is needed to steady the heart. The strychnine is indicated in the asthenic cases or when nervous or cardiac tone is beginning to flag later in the disease.

To epitomize: In sthenic cases, where the pulse is full and bounding, give the deferrescent combination of aconitine, digitalin and veratrine. In the asthenic cases or in stages of weakness, change to the "trinity" consisting of aconitine, digitalin and strychnine arsenate. How beautifully these two combinations act was shown by

the experience of Dr. Wolverton, just quoted, who, using this method, lost only one case of lobar pneumonia out of 141 which he treated.

Of course other indicated remedies should be employed, including the "clean out," the intestinal antiseptics, and proper local applications. Don't forget bryonin and calx iodata!

Hundreds, yes, thousands of physicians can testify to the merits of this method. We hardly need defend it—we can leave that to the "family". Only last week a doctor dropped in to see us and said: "I just love to get hold of a case of pneumonia *now*. It doesn't worry me a bit, for I *know* that if I see the case reasonably early my patient is going to get well." He uses the "alkaloidal" method.—Ed.]

CAN PNEUMONIA BE CUT SHORT?

Now we come to an old battle-ground—with the fight still on. To those of us—and their number is not few—who maintain that pneumonia can frequently be aborted and cite case after case to prove our assertion, the eminent scientist has but one answer, an answer stereotyped and always ready. I have heard it hundreds of times. It is always the same. It is effective, and withal a trifle dogmatic, I will not say, discourteous. *Error in diagnosis*. Now will you be good? We are very promptly put where we properly belong, in that large class of well-meaning but wholly incompetent individuals.

How can we argue the matter? We have absolutely no ground left to stand on. We are ruled out of court. Postmortem records show no abortive cases. We are not allowed to assassinate a few choice cases for purposes of demonstration. So there we are undeniably in the front row of the utterly incompetent. What business, anyway, have we poor, benighted, half-educated, misguided, deluded and wholly mistaken individuals actually to argue with an established authority, one who has risen by sheer force of intellect above all human fallibility?

Doubtless we misguided people actually believe that we aborted that pneumonia;

may, worse, that we actually had a case of pneumonia to start with when it was obviously only a case of congestion. Mere hallucination of the untrained mind! Not to be taken too seriously. We should be properly snubbed, and let our betters, who have *heard* about our methods of treatment but have not been so unwise as to try them, pass final judgment.

It only remains modestly to suggest—indirectly, of course—that so long as the mortality of pneumonia under orthodox treatment remains at the usual 20 to 30 percent, the subject is not one for further discussion. It is more polite and tactful for the said misguided individuals to change the subject. Even a high authority is sometimes sensitive. Don't harrow up his feelings by referring to his own 30 percent mortality. True, he has just made you feel like thirty cents, but let it pass. You've only gotten what is coming to you. If theory does not accord with the facts, calmly push the facts aside. This is the privilege (sometimes) of the truly great. Error in diagnosis, like the policeman's billy, is always handy, and a great silencer.

But, after all, denial is not argument, and to call the other fellow an ass or a fool, or its more euphemistic equivalent, incapable of diagnosis of one of our most common maladies, is an old, old way of controverting your opponent, but it fails with some of us to put at rest an important question.—W. N. MACARTNEY in *The Medical Council*, August, 1911.

[All of which we support, supplement and further emphasize by a fervent "Amen, Brother!"—ED.]

BLINDNESS FOLLOWING THE USE OF THYMOL

A boy of six, in this vicinity, took the regular thymol treatment for hookworm in May, 1911. Within six or eight days after taking treatment the boy became cross-eyed, and at the end of four weeks he was entirely blind. His health was good before this time, except that he was a little pale. He is quite well now. The attending physician also administered the thymol

to the boy's sister who suffered no inconvenience whatever, following its use.

There were no restrictions regarding the diet while the patients were being treated. Now the question is, did the medicine cause the blindness?

H. T. POPE.

Dumberton, N. C.

[It would not be safe to say that the thymol was the cause of the blindness, since we are unable, at this distance, to exclude other possible causes. But the case is certainly a very suspicious one. Thymol is a toxic substance—especially when it is given in the large doses recommended for the removal of the hookworm. It is also significant that no precautions were taken in the diet of this boy. It is one of the imperative rules, which must not, *can* not be violated with safety, that no oils or fats shall be taken by the patient who is undergoing this treatment, not even butter on bread, or castor oil to purge, since the oils are ready solvents of this substance and increase its toxicity. The same precaution must be insisted on with regard to alcohol, which can not be taken safely during thymol medication.

On the other hand, we have been unable to find any report of cases of blindness due to thymol. The substance is irritant to the kidneys, and it is reasonable to believe that it might deleteriously influence terminal vessels elsewhere. The usual symptoms of thymol poisoning are heart weakness, cyanosis, dizziness, fainting and unconsciousness. Dock and Bass ("Hookworm Disease," pages 216-217) say they have never seen more than a slight dizziness, and while they have heard of alarming symptoms they personally know of no fatal cases.

Thymol is plainly, however, a remedy to be employed very carefully.—ED.]

RULES FOR RIGHT LIVING

Norman Selby, otherwise known as Kid McCoy the prize-fighter, who has been studying physical culture for a number of months, says that since February he has gained 25 pounds in weight, added four inches to his chest measurement, reduced

his waist eight inches, and, most remarkable of all, grown an inch and a quarter in height. His method is embodied in the following ten "health commandments":

1. Thou shalt keep thy backbone straight.
2. Thou shalt use all thy lungs all the time.
3. Thou shalt drink half a gallon of water daily.
4. Thou shalt take sufficient nourishment.
5. Thou shalt masticate thy food properly.
6. Thou shalt sleep eight hours daily.
7. Thou shalt cleanse the body daily.
8. Thou shalt walk three miles daily.
9. Thou shalt think pleasant thoughts and banish unpleasant ones.
10. Thou shalt praise the Creator for the result these laws bring, and tell thy neighbor.

A NEW TYPHOID-FEVER TEST

We desire to verify a new typhoid-fever test which has been proposed in the last few years for the early diagnosis of the disease, and should like to receive a few specimens of urine from cases suspected of typhoid fever, for our investigation. Needless to say that such examinations will be made free of charge, provided the sample of urine is labeled: "For typhoid-fever test."

COPPER SALTS AND IPECACUANHA IN THE TREATMENT OF AMEBIC COLITIS

In *Merck's Archives* for July, 1911, Dr. J. A. Storck of New Orleans, reports his results in a series of 45 cases of amebic colitis which are not only interesting but highly instructive. He says that of all the numerous remedies suggested for the treatment of this difficult condition, ipecacuanha, calomel and magnesium sulphate are the best and most favorable ones for internal use, and that a great many preparations, from quinine sulphate to the silver salts, have been recommended for colonic irriga-

tion and instillation. For his part he has found a combination of the internal administration of ipecacuanha and copper arsenite, along with hot instillations of copper sulphate, to give the best results.

In some cases the administration of ipecacuanha in the form of pills coated with shellac, keratin, or salol, had to be abandoned because of the occurrence of disagreeable results, and these cases, if the patients were put upon copper arsenite by mouth and hot instillations of copper sulphate, showed good results.

The 45 cases reported are taken from hospital and private practice, and 24 of them were treated with the ipecacuanha alone. Nine received ipecacuanha and copper arsenite internally and hot instillations of copper sulphate by bowel, while twelve



Dr. M. W. Phillips, Chapman Quarries, Pa.

were treated with copper arsenite alone internally and hot instillations of copper sulphate by bowel. All the cases were given at 5 o'clock every morning for from five to ten days, 30 Cc. of a saturated solution of magnesium sulphate, in order to remove from the mucous membranes as many as possible of the ameba and clear out all digestive residue.

In the 24 cases treated by ipecacuanha, the initial dose given at 8 p. m. ranged from 40 to 80 grains in salol-coated pills. The total quantity given ranged from 200 grains minimal dose to 630 grains, maximal dose, in a given case, according to the toleration and results produced. Strange to say, the smaller doses gave as good results as the larger amounts, that is, apparently caused the disappearance of the entameba h., and

the patients taking the smaller amounts did not show a greater number of relapses, indicated by a reappearance of the entameba h., than those taking the larger amounts. Nevertheless, the author preferred to give a large initial dose and a greater total quantity. The dose was reduced five grains every night, until on examination the stools showed freedom from the entameba h., when the dose was continued for several days.

Of the first series of 24 cases, 6 relapsed. The entameba h. reappeared in the stools after an apparent absence of from two to six weeks. In 12 of the cases, where no entameba h. could be found during this period, three had occasionally mucoid stools, one of them continuing to show traces of blood. Assuming that the other six cases, of which trace was lost, did not have a recurrence, and eliminating the three cases with mucoid stools, there is a proportion of true relapses of 25 percent.

Four of the six cases of this series which relapsed were prevailed upon to submit to the copper treatment, and with one exception there was complete cessation of all bowel symptoms in the course of twelve days. These cases have remained free from entameba h. up to the time of writing, four months since their disappearance.

The author emphasizes as his experience that under the administration of ipecacuanha the number of stools is lessened and they become formed, but the entameba h. are not eradicated in all cases. They may, in fact, develop an ipecacuanha resistance.

The second series comprises nine cases which were treated with ipecacuanha as in Series I and in addition during the daytime with 1-100 grain of copper arsenite every hour until six or eight doses were administered and thereafter every four or five hours as long as the ipecacuanha was given.

Morning and evening (every twelve hours) during the above period, high instillations of hot 106° to 110° F.) solution of copper sulphate were administered. Entameba h., also mucus and blood, disappeared from the stools in all of these cases in from six to twenty days. Of these six cases were under observation for more than two months, there was no recurrence

of entameba h. and only one relapse of mucoid stools, a percentage of 11 percent.

In the third series, 13 cases were treated, including three in which untoward effects had occurred from the first dose of ipecacuanha, four which relapsed after full treatment with this drug, and six which had received previous treatment without cure resulting before coming under Dr. Storck's charge. These cases were each given magnesium sulphate as in the other two series, copper arsenite internally and hot instillations of copper sulphate were given as in Series II. The time required to eradicate the entameba h. and to free the stools from mucus varied from five to twenty-five days, that is, a slightly longer time than in Series II. In eleven of the cases in which the prescribed treatment was faithfully carried out, none relapsed for from six to ten weeks. The other two disappeared before the occurrence or non-occurrence of relapse could be ascertained. If they are classed as having relapsed, Series III gives a percentage of 15 1-2 of relapses.

All the patients were put to bed on beginning treatment, and whenever possible were induced to remain in bed until the entameba h. had disappeared from the stools.

We have thus: Series I, ipecacuanha treatment, 24 cases, relapses 25 percent.

Series III. Thirteen cases, copper arsenite internally, hot instillations of copper sulphate, two questionable relapses, 15 1-2 percent.

The author's method of applying the hot instillations of copper sulphate is that suggested by Moulden, and is as follows:

The patient is placed upon an inclined plane that raises the buttocks twenty-five centimeters above the level of the shoulders, thus allowing for the complete distension of the entire colon, especially at the cecum where the entamebas are usually present in large numbers. By taking advantage of the fact that, as the majority of the weight of the solution is thus kept internal to the sigmoid flexure, a maximum distension of the entire colon is produced, while a minimum amount of pressure is brought to bear upon the rectum and its sensitive nervous mechanism, the colon is thoroughly

irrigated through a double-flow colon tube, with sterile water until the return is perfectly clean. After draining off all the surplus water, the bowel is slowly filled with the hot copper solution by starting the reservoir on a level with the anus, and slowly elevating it as the gut accommodates itself to the pressure, thus distending it to its fullest capacity without contraction of the muscular walls. The temperature at which the instillations prove the most efficacious is from 106° to 110° F., the higher

proving the superior value of large doses of copper arsenite internally. As to the advisability of employing colon flushings with copper-sulphate solution there can be no doubt, and the addition of the magnesium sulphate also does not require any support. If we were to suggest an improvement over Dr. Storck's method we would say that the unfavorable symptoms which he observed occasionally under the use of large doses of ipecacuanha could probably have been obviated by the administration of corresponding doses of emetin, which, containing emetine and cephaeline, combines the active principles of ipecacuanha. It need not be given in such massive doses as does the crude drug in order to obtain the same ipecac effect.



Dr. L. L. McKinney and family, Burnsville, W. Va.

temperature being used as a rule in the worst cases. This temperature seldom causes annoyance, but on the contrary, acts as a sedative to the mucous membrane, improves the penetrative power of the copper, and brings about reaction. The patient usually retains the solution for twenty or thirty minutes. This procedure is repeated every twelve hours, and has been found to work well in practice, as it does not needlessly exhaust the patient. Under the copper treatment, patients gain rapidly in weight, possibly due to some tonic action resulting from the absorption of the copper. Profuse perspiration frequently occurs, but no unfavorable results follow.

The strength of the solution used by the author on the cases reported was from 1:10,000 to 1:6000.

This report of Dr. Storck is exceedingly interesting, not only because it shows the relative efficacy of the ipecacuanha treatment in amebic colitis, but still more in

When it reaches my desk I feel as if I have been cheated if for any reason I am forced to lay it aside before finishing it from cover to cover.

I was regarded with suspicion by many of the physicians with whom I am thrown when I began to use the active-principle idea in my practice, but I am quite sure that a goodly and growing number of them now agree with me that the alkaloidal idea works out satisfactorily in daily practice. There is more science and less "guesswork", more satisfaction and less disappointment when a pathological condition is met with a remedy of known physiological action than can be hoped for when the enemy is met with a blunderbus loaded with good, bad or indifferent ammunition. If the practice of medicine ever reaches a stage where it can be called an exact science it will be along the lines you have so courageously and persistently fought for.

W. C. BRYANT.

Camp Yonah, Ga.

WELL SATISFIED

[Therefore, we purpose to keep right on fighting, with the help of our thousands of friends. Can't we, among us, slip an increasing number of copies of CLINICAL MEDICINE over into the camp of "the other side"?—ED.]

CICUTINE IN SENILE DEMENTIA AND CANCER

Excepting my experience, I am unable to find any authority for the use of cicutine hydrobromide in senile dementia with delusions, but Potter mentions its use in combination with morphine, in acute mania.

I found this drug also to mitigate, in a measure, the pains of intestinal cancer; so much so that I seldom was called upon to use hyoscine and morphine.

I will say that I treat rheumatism as an autointoxication. It is a difficult matter to practise high saline colonic flushings on an office patient.

HORACE R. POWELL.

Poughkeepsie, N. Y.

WHAT IS THE MATTER WITH THE PROFESSION?

Only that we are evolving out of the past toward the future. I, for one, do not see any real progress in the editor's scheme of a "doctor limiting himself to take care of 500 persons, each of whom pays him a stated sum monthly." I believe any such plan is impracticable.

This scheme of hiring doctors by salary is now being tried out in Germany, in the "krankenkassen" companies, and it does not work satisfactorily, either to the physician or the public. The Leipsic League, in a circular issued last year, showed up the unsatisfactory condition into which it has brought, and is bringing, the medical profession in Germany. Physicians over there are crowded in the cities far worse than here, and starving, while quackery is flourishing everywhere. In many cities of Germany there are as many irregular practitioners as there are regulars. In the country districts the mothers are dying from puerperal sepsis for want of medical attendance.

In 1906, Prussia had a mortality from this preventable disease of 3722—twice

the mortality per million inhabitants that we have in Minnesota! (*Journal of the American Medical Association*, Dec. 12, 1908, p. 2070). The profession in Austria and France and in the other European countries is in the same fix—overcrowded in the cities, while the country districts are without adequate medical service.

Well, what is the trouble, then? *An impracticable medical educational program!*

Dr. John B. Murphy called attention to this matter in his presidential address at Los Angeles (*Journal of the American Medical Association*, July 1, 1911). Dr. Murphy is the first man of prominence that has had courage enough to put his finger on the sore spot of the dry-rot in medicine. Listen!

"In order to meet the educational requirement for matriculation in the modern medical school, the young man is forced to keep his face in the folds of books from his infancy. He has had no opportunity to think, he has not been taught to think; he is a book-stuffed, machine-made, nonthinking automaton, albeit a fit and acceptable applicant according to present requirements, from which a medical school is *supposed* to make a thinking medical man. What marvelous powers a medical school must possess! How is it possible? What changes should be instituted in the evolution of the medical embryo?"

Of course, when we think about it, we all know that Dr. Murphy has hit the nail on the head. Our medical curriculums today in our best schools are training men to be professors, original investigators or special technicians in a hospital, but not to be general practitioners. These high-grade graduates know all about the abstract sciences, have the university method and the hospital technic at their fingers' ends—but as for relieving Johnnie of his choke-cherry colic, they're helpless, or as for doing a major obstetrical operation at a farm house, without trained nurses and assistants—why, they know it "can't be done."

Dr. Murphy says the profession is not overcrowded. Of course, not, except in the mind of some ultrascientific university professor. He says what the *patient* needs is relief of his symptoms, and if physicians

would attempt to provide this, every doctor in this great land would be overworked. Here, you therapeutic nihilists, put that in your pipes and smoke it!

If our medical faculties would bend their energies to devise a proper medical curriculum, preliminary and medical, which would make practical physicians who could and would help ordinary people in times of disease and suffering, instead of as at present, trying to make "scientists," then the main troubles of the medical profession—professional and economic—would be solved.

Space forbids me enlarging on this subject. But Dr. Murphy has opened the path in the right direction, and now the rank and file must follow.

CHRISTIAN JOHNSON.

Willmor, Minn.

A STUDY OF PELLAGRA

Dr. A. L. Nason, of Maben, Mississippi, who is making a careful study of the stools in cases of pellagra, believes that there is a close association between this disease and the hookworm disease. He would like to get in touch with physicians who are treating cases of pellagra, in order to secure specimens for examination. We urge any of our friends who are interested in this subject to correspond with him.

FRACASTOR'S "SYPHILIS"*

Several years ago the writer of this review, while attending an auction sale of old books, became a bidder on a beautiful, vellum-bound volume, one of the earlier editions of Fracastor's poem, "Syphilis." At that time he knew little about the book or its author, and it went to a more discriminating booklover, who secured it for the ridiculous sum of \$2.35.

Yet the loss had one good effect: it intensified his interest in one of the most important periods in human history, the Italian renaissance, and particularly in one of its most striking figures, Girolamo

(or Hieronymus) Fracastor, who in his day was the leading physician in Italy, as well as a writer of polished Latin verse. Yet it was neither Fracastor's skill as a physician, nor the beauty of his literary style that made him illustrious; it was the fact that in his poem he gave the now well-known venereal disease the two names by which it is best known, namely, "syphilis" and "lues."

Fracastor was born in Verona, in 1483, and died of apoplexy at his villa of Incaffi, near Verona, in 1553. At nineteen he received his academic degree from the university at Padua, and became professor of logic in this great school, later taking up the study of medicine, in which he was to attain the first eminence. From about the year 1507 to 1509 he was under the patronage of the celebrated commander Bartolommeo D'Alviani, and gave lectures at the academy founded by this nobleman at Pordonone. At the battle of Ghiaradadda his patron was wounded and captured by the French, after which Fracastor returned to his native city, and, in his villa close by, devoted himself to scientific and literary pursuits. This remained his home (except for short intervals) until his death.

It will be seen that the life of Fracastor included one of the most brilliant periods in Italian history. It embraced the pontificates of the notorious Alexander VI (the Borgia), Julius II, greatest papal patron of the arts, Leo X, the first Medici pope, known as "the Magnificent," Clement VII, also of the house of Medici, and Paul III, the great codifier of catholic doctrine. During the life of Fracastor America was discovered, printing from movable type was invented, and the stiff-necked Augustinian friar Martin Luther initiated the great protestant reformation. During this time Italian art and literature attained their finest flowering. He was of the generation of Michael Angelo, of da Vinci, Correggio, Titian, and Raphael. Dante and Petrarch had long since passed off the stage, but Machiavelli wrote "The Prince" and Ariosto his "Orlando Furioso" during Fracastor's life. Many of these distinguished men were his acquaintances, and some of them his intimates. He was considered the finest Latin poet of his time, disputing that

*Hieronymus Fracastor's "Syphilis." A Prose Translation from the original Latin. Octavo. Price \$2.00. Published by the Philmar Company, St. Louis, Mo.

title only with the great Politian. "Syphilis" was his masterpiece.

The theme of this book was the *morbus gallicus*, or "French Disease," as it was generally called. The first great epidemic of this disease followed in the wake of the armies of Charles VIII of France, which overran Italy in 1494-95. The pestilence passed from one part of the country to another like wild-fire, carrying off thousands. From this country it spread all over Europe. All classes of people were affected—popes and peasants, soldiers and tradesmen, great ladies of the court and the common women of the street. When this poem was begun syphilis had been present in Italy for only about twenty years, so that the author had had opportunity to study it thoroughly, from the very beginning.

The source of this disease, whether or not it had been brought back from the New World, its nature, how it was disseminated, and methods of treatment, were all lively subjects for controversy among the writers of the time. Thus early, no one seems to have suspected its venereal character.

It was this problem, the nature and cure of syphilis, which was the topic for discussion in Fracastor's poem. He chose the poetic form to convey his message. As Fracastor says at the beginning of the poem, using the beautiful translation of this edition:

I sing of that terrible disease, unknown to past centuries, which attacked all Europe in one day, and spread itself over a part of Africa and of Asia. I will tell what concourse of influences, what occult germs have caused it, how it arose in Latium at the time that the French armies rendered desolate that unhappy country, what reason caused it to be called the French disease.

The poem takes its name from a legendary character mentioned in the third book, Syphilus, a shepherd who watched the flocks of King Alcithous. A torrid heat burned the earth, the forests had no shade, the fields dried up and his animals perished. Becoming impatient with Apollo because his prayers for relief were not answered, Syphilus impiously neglected the worship of the god and raised an altar to his king, to whom he rendered divine honors. The god in his anger charged the sun's rays with "pestilential poisons and virulent miasms," and "at once upon this criminal earth there

arises an unknown plague." Syphilus was the first to be attacked. "A hideous leprosy covers his body; fearful pains torture his limbs and banish sleep from his eyes." How he is restored to health is told in poetic language.

The poem contains a minute description of the etiology of the disease, as seen by Fracastor, a discussion of its symptoms, together with poetically conceived legends of the discovery of the two most popular remedies, mercury and guaiac.

Fracastor believed that syphilis was caused by a miasm, a subtle poison which "spreads itself in the ether and disseminates its pernicious effluvia through the immensity of space." The origin of the miasm was found in the influence of the sun and stars upon the atmosphere or "ether."

The treatment advised by Fracastor would be considered rather appalling in these days. Internally he recommends decoctions of remedies whose names even are strangers to us now. He mentions pambilia, fennel, smallage, fumitory, capillaria, ceterach, and hart's tongue; urges the physician to use "these favorable properties" of squills, colocynth, hellebore, olivatum, myrrh, bdellium, ammoniac, opoponax, and hermodactylum; while resinous substances of all kinds are advised, such as olibanum, the resin of cedar, aspalath, cypress, gallinagate, cassia, cardamom—and numerous others.

Mercury was highly extolled, but was used locally only. (It was not used internally until 1633—the first edition of this book appearing in 1630.) Concerning this substance Fracastor says:

At the beginning mercury was employed associated with lard; later it was combined with the turpentine of Epirus and the resin of the majestic birch: . . . For my part I prefer to alloy it with a mixture of black hellebore, orris root, galbanum, asafetida, oil of mastic, and oil of native sulphur.

Patients, a truce to the disgust which may be caused by this remedy! For if it is disgusting, the disease is still more so. Besides, your cure is at this price. So, without hesitation, spread this mixture on your body and cover with it your entire skin, with the exception of the head and of the precordial region. Then carefully wrap yourself in wool and tow; then get into bed, load yourself with bed covering and thus await until a sweat bathes your limbs with an impure dew. Ten days in succession renew this treatment, for ten entire days you are to undergo this cruel trial whose beneficial effect will not cause you to wait.

In another legendary story Fracastor tells of the healing power of mercury. A Syrian husbandman named Ilceus has incurred the wrath of Diana by killing her sacred deer, and has been afflicted with the disease. The friendly nymph Calirrhoe conducts him deeply into the caverns of the earth, where he finds other nymphs, who preside over the making of the precious metals. One of them, Lipara, takes him in charge and leads him by gaping gulfs, subterranean rivers, and bottomless abysses, until they reach "the sacred river whose metallic waves carry quicksilver". Ilceus is bathed three times in the liquid metal and is healed.

Equally beautiful is the story of the finding of the other great sixteenth-century remedy for syphilis, guaiac.

A Spanish flotilla, we are told, is brought by the hands of the angry Apollo "to the banks of Ophir," where the dread pestilence is loosed upon them. But the king of the country tells them of the miraculous appearance of the sacred tree guaiac, which (as already described) brought relief to the shepherd Syphilus. It was this "divine guaiac" which received the final apostrophe of the poet, and the book concludes with an elaborate laudation of its virtues.

It there were space, I should like to tell you more about Fracastor's life and of his services to medicine; of his scientific contributions; and of his attendance upon the Council of Trent, to which he was sent as attending physician by Paul III. "Syphilis" was dedicated to the Latin poet Bembo, who was secretary to Leo X and later was to become a cardinal. He had an interesting and romantic career, which was closely united to that of Fracastor.

The poem is characterized by deep thought, couched in beautiful imagery, and in a style patterned after the great Greek poets, the study of whose works was then undergoing a revival in Italy.

The thought which strikes a twentieth century physician is that a medical man should think of using poetry as a means of expressing his thoughts or promulgating his theories. Can we conceive of Sir William Osler unfolding the beauties of a

case of typhoid fever in rolling hexameters? Or Paul Ehrlich telling of the discovery of salvarsan, as if he were writing a canto of Don Juan? But why not? The achievements of modern science are poems of creative imagination; and if the medical genius wishes to borrow the language of Parnassus to tell of them—why, let him!

The translation is beautifully done, preserving the imagery of the poem, while faithfully reproducing the thought.

ALFRED S. BURDICK.

Chicago, Ill.

THE PHYSICIAN'S POCKET ACCOUNT-BOOK

We have just received a brief letter from Dr. J. J. Taylor, editor of *The Medical Council*, No. 4105 Walnut St., Philadelphia, Pa., who feels that complete justice was not quite done his Physician's Pocket Account-Book, in Dr. Achard's article in our October issue. (See page 1046.)

Dr. Taylor writes that the Physician's Pocket Account-Book is not a ledger, but rather an individual day-book, so ruled and headed that accounts are carried in the names of the individuals responsible for the accounts, and entries can be made almost instantaneously. No signs or symbols are required in entering the accounts and everything is in plain, legal language.

One of the great merits of the book is that the physician can always have it with him, so that the entry may be made at the time the transaction occurs. The book-keeping is always up to date, requiring no posting. The physician can always tell his patron upon request just how much is due and what for. Another merit is its economy. The editors of *CLINICAL MEDICINE* are glad to add their testimony to the value of the Physician's Pocket Account-Book.

TUBERCULOSIS TREATMENT

In the *Zeitschrift fuer Tuberkulose* for June, 1911, Doctors S. Bernheim and L. Dieupart, both prominent leaders of the antituberculosis movement in Paris, France, communicate their experiences with diora-

din, which is radioactive iodomenthol, a preparation introduced into practice by Dr. Szendeffy of Budapest. After three years of investigation, with satisfactory results, Dr. Szendeffy requested the Paris physicians to test the remedy which he had elaborated, and they used it in a considerable number of cases in their tuberculosis dispensaries.

The composition of dioradin is as follows: Peptonized iodine, 0.75 Cc.; menthol, 0.06 Cc.; radium-barium chloride in ethereal solution, 1-10 drop. This is put up in an oily vehicle, and supplied in sterile ampules. The dose is from 1-2 to 1 Cc. every day for ten days; then every other day until forty injections have been made. After an interval of one or two weeks another series of 40 injections follows, which may be supplemented by a third or fourth series.

The authors have made series of thirty consecutive daily injections, without any harm. Dr. Szendeffy from the first warned against using his remedy in patients whose kidneys or hearts were in bad condition.

The authors find that under the use of dioradin the fever diminishes, the temperature becoming normal in the course of a few weeks. The appetite shows visible improvement after from six to ten injections. In the course of the treatment the weight increases, night sweats and cough diminish, and the patient, owing to better rest, feels stronger. The bacilli are found to diminish in the sputum and finally to disappear.

The author's conclusions are based upon their observations in 75 patients, which they describe in detail. They conclude that the radioactive iodomenthol has a germicidal action upon the tubercle bacillus and upon the streptococcus, that it improves the general condition and appears to exert a general dynamogenic effect, leading to an increase in body-weight and exerting its favorable action in spite of intercurrent affections. In tuberculous adenitis its action was found to be curative; it also affected tuberculous laryngitis favorably.

The report of the French investigators is decidedly enthusiastic. If it should prove to be well founded, it would appear that this new remedy might supply those

physicians who cannot, for some reason or other, make use of strictly specific remedies for tuberculosis with a means of combating consumption that might assist their general treatment decidedly.

There are some points in the communications of Szendeffy and of Bernheim that cannot be accepted as definite, nor has it been shown whether the formula of the remedy is primarily an acceptable one. The reports which are available so far are of sufficient interest to encourage further investigation.

THE DEATH OF DR. ALEXANDER H. FERGUSON

We have just learned of the death of Dr. Alexander H. Ferguson, one of the best-known surgeons in Chicago, and former president of the Chicago Medical Society, which occurred October 20, following a long illness due to septicemia resulting from a carbuncle. A more extended notice will appear in the next number of *CLINICAL MEDICINE*.

NEWS NOTES

We shall announce the names of the prize winners in our September contest next month. Be on the lookout for it.

Dr. W. A. Evans, former Health Commissioner of Chicago, is now the editor of the department on "How to Keep Well," a feature of *The Chicago Tribune*.

The Baltimore (Maryland) Health Department has begun the manufacture of typhoid-fever serum to be used for the prevention of that disease, and is distributing this serum among the physicians and hospitals of that city.

Dr. Howard A. Kelly, the well-known Baltimore surgeon and professor in Johns Hopkins Medical College, was operated upon by the Mayos, at Rochester, Minnesota, in September. The character of the operation is not announced, but his condition is said to be excellent.

According to Dr. Ludvig Hektoen, there is not one single completely equipped medical school in Chicago. According to the statement which he makes in a Chicago newspaper, "they are either lacking in apparatus, in faculty or in clinic."

The office of Secretary of the Illinois State Board of Health now falls under the Civil Service Law, so that hereafter Dr. James A. Egan will not be dependent upon changing administrations for his tenure of office. We congratulate Dr. Egan, who has done efficient work in our state board for many years.

Wisconsin now has a law requiring all physicians to report to the State Board of Health all cases of poisoning from lead, phosphorus, arsenic, mercury, or from compressed-air illness contracted as a result of the patient's employment. Blanks for reporting such cases have been prepared by the board and are supplied free to physicians of that state.

Our old friend Dr. Wm. Steinrauf of St. Charles, Missouri, writes us of the death of his son, Albert Steinrauf, in Panama. He had lived in the tropics ten years. He did hospital and other work in Manilla, and later was employed on the Isthmian Canal at Panama. His death was due to chronic malaria and enlarged liver. Our sympathies all go out to Dr. Steinrauf.

We learn from one of our lay exchanges that in eleven southern states 10,300 new cases of pellagra have been recorded this year. The disease is spreading rapidly. There are few cases of this disease in any northern state except in Illinois. The mortality is between 50 and 75 percent of the total number of cases, and about 30 percent are said to reach the state of insanity.

We learn from the newspapers that Dr. John F. Anderson, Director of the U. S. Hygienic Laboratory at Washington, D. C., and Past-Assistant Surgeon, Joseph Goldberger, have at last succeeded in isolating

the specific organism that causes measles. It is stated that the inoculation of the monkey with this organism has produced the characteristic symptoms of the disease. The character of the organism is not yet described.

A committee of the American Gynecological Society, headed by Dr. Barton Cooke Hirst, professor of obstetrics in the University of Pennsylvania, is urging state medical examining boards to require graduation from a medical school which demands of its students personal attendance upon at least 6 obstetrical cases before graduation. This is certainly a reasonable demand. The number required is small as compared with the requirements in Europe, where 40 to 50 cases must be seen by graduates before they can be licensed to practice.

On page 1104 of the last CLINIC we printed an article to which the name of Dr. G. A. Pratt, of Munday, Texas, is appended. Now cometh a letter from Dr. G. A. Trott, also of Munday, Texas, who assures us that Pratt is an "impostor," and requests us to "swat" him. Dr. Trott then confesses that he wrote the little article himself, and suggests that perhaps it is just as well that Pratt should be held responsible for the "prattle" referred to. Be that as it may, we apologize to the readers of CLINICAL MEDICINE for foisting the impostor Pratt upon their attention, and for neglecting Trott. We shall not try to explain how the mistake happened—we just trot out and apologize, that's all.

Some months ago it was announced that the buffalo gnat was the direct agency in transmitting and carrying pellagra, in the same way that the mosquito carries and transmits malaria and yellow-fever. However, the theory has never been proved, although some attempt has been made to learn the truth. The buffalo gnat is a very small, black, hump-backed gnat. The larvas of the gnat, so we are told, live and hatch out in rapid-flowing streams and not where the water is sluggish. However, artificial conditions may cause the water to flow rapidly, in which case the gnat

may appear elsewhere, as along the Mississippi River Valley in 1884.

We are pleased to announce that the second annual meeting of the Clinical Congress of the Surgeons of North America, so auspiciously organized in Chicago last year, thanks to the energy of Dr. Franklin H. Martin, will meet in Philadelphia, November 7 to 17. The days will be devoted exclusively to clinical work (more than 200 clinics have been scheduled in 26 different hospitals) and the evenings to lectures. The biggest men in American surgery will be in attendance, and an enormous variety of clinical material is available. Philadelphia is one of the greatest medical centers in the world, and she is preparing to "do herself proud." The Chicago meeting of this body was a revelation; the Philadelphia meeting will be a still greater one. The president is Dr. A. J. Ochsner of this city, Plan to attend.

Talk about the high price of living! Here comes Dr. George Ward, who is a "veterinary," and lives in Connecticut. He is seventy-four years of age, and challenges anyone in his state to walk any distance, and at any speed—anyone, anywhere in the world. Dr. Ward says that a man who wishes to live cheaply can grow into a "pillar of strength" on ten-cents' worth of oatmeal a week, but the Doctor likes luxury too well to confine himself to oatmeal, and he is not so stingy that he minds spending 26 cents a week pampering himself. "All of us have our weaknesses," he explains, "and mine is for peanut butter and crackers, so I don't begrudge the expense." Having a grocery bill of \$13.52 a year, Dr. Ward can hardly be expected to sympathize with those of us who like sugar at 8 cents a pound and porterhouse steak at 25 cents—and lots of them.

The New York Evening Post cleverly takes off the medical information dispensed by the daily press, in the following words:

"The great public takes its medical knowledge from the Sunday supplements, from which it learns successively that

science can now create life, that bathing does more harm than good, that a cure for tuberculosis is near at hand, that x-ray therapy kills more people than it saves, that tuberculosis is on the increase, that cancer will soon be checked, that diphtheria is on the increase, that cancer is on the increase, that hydrophobia is on the increase and the Pasteur cure is a fraud, that organic diseases can be cured by starvation, that starvation leads to madness and death. It is a welter of credulity and rumor that would be laughable if it did not so intimately concern the lives and the health and even the spiritual well-being of the community. For it is a fact that people will stake their own lives and health, as well as the lives and the health of those that are dear to them, on vagaries, wild assertions, and equally wild denials. And because every vagary or superstition always associates with itself some name high in authority, the mischief thrives the more."

Through the newspapers we learn that Admiral Togo and his staff suffered from indigestion, on several occasions, as a result of the too generous treatment accorded them by our admiring Government, during their recent visit to America. One of the saddest incidents of this character occurred in Boston. During the course of a banquet a member of the Admiral's staff was noticed to rise in haste from his position at the table, one hand pressed upon his epigastric region, while a look of anguish, tinged with surprise and concern, crept rapidly over his countenance. The following day the newspapers informed us that this brave naval officer had suffered an attack of indigestion. He had eaten too many Boston baked beans.

Admiral Togo and his men have faced without flinching all the dire dangers of the deep, they have looked into the Russian cannon's mouth with smiles on their faces and "banzais" on their lips, but it is safe to say that hereafter none of them will be able to look upon a plate of Boston baked beans without horror and alarm. "Peace hath her dangers no less renowned than war," or as Virgil would say: *Timeo Americanos et fabas ferentes*.

JUST AMONG FRIENDS

A Department of Good Medicine and Good Cheer
for the Wayfaring Doctor

Conducted by GEORGE F. BUTLER, A. M., M. D.

THE best treatment I know of for paralysis of the bladder, whether mechanical or of nervous origin, and including stricture and prostatic enlargement, is the injection into the bladder of 15 or 20 Cc. of a 2-percent boroglyceride solution with just enough force to overcome resistance of the sphincter and pass into the bladder. Usually one injection is sufficient. But along with this, the patient should take a combination, in tablet form, consisting of berberine hydrochloride, gr. 1-6; juglandin, gr. 1-6; physostigmine salicylate, gr. 1-500; strychnine sulphate, gr. 1-67; capscin, gr. 1-67. Of these, four tablets a day should be used. This prescription is also of great value in colonic paresis.

Obstinate constipation is one of the most troublesome conditions we have to contend with. Not long ago I read that rectal injections of soft paraffin acted well. I have treated successfully, lately, several cases of obstinate constipation associated with dry, scybalous masses and diminished reflex irritability of the lower bowel, by injecting into the rectum, each night, about 200 Cc. of a soft petrolatum, of near 100° F. melting-point, warmed until fluid. The patient should be in the knee-chest or side posture, a warmed syringe or rectal tube being used to inject the liquefied paraffin. After about eight or ten days the amount injected may be reduced one-half, while in the course of another week or two the injections need be given only every other night, to be discontinued entirely after a while. Should there be no spontaneous movement in the morning, a small dose of effervescent saline laxative before breakfast and a small saline enema should be ordered. Waugh's

anticonstipation granules should be taken daily, to increase muscular tone, one to three, thrice daily, being the ordinary dosage.

This subject of constipation reminds me of a very troublesome condition that we have to contend with, namely, pruritus ani. Very often this symptom is the result of local irritation in the rectum or large bowel, and in all cases I am in the habit of ordering washing out the large bowel with saline enemas and prescribing, internally, each morning before breakfast a small dose of saline laxative, preferably magnesium sulphate; also, two hours after each meal, a dose of sodoxylin, to overcome any acidemic condition that may be present. Locally, I have the parts bathed twice daily with starch water as hot as can be borne, and the application of the following ointment: Phenol, 20 grains; calomel, 1 dram; tar, 1 dram; menthol, 10 grains; zinc oxide (very fine), 1 dram; petrolatum, 6 drams; lanolin, 2 drams.

I have had excellent success with potassium permanganate in the treatment of amenorrhea in young women. This agent is useful also in cases of scanty, and perhaps delayed, menstruation. Potassium permanganate may be given in doses of from 1 to 2 grains three times a day after meals, and continued until the catamenia appear and complete their course, when the salt should be discontinued. It should be recommended four days before the access of the next period, and continued till the flow ceases.

I have had as good success with atropine and adrenalin in the treatment of bronchial asthma as I have had with any other drugs.

Gelseminine is a drug that should be used more than it is. I have found it of value in many conditions. Among those that occur to me just now are acute spasmodic stricture of the urethra, and if given after each pain it often will arrest false labor. It is one of the best drugs to give to allay excitement, and to stimulate secretion previous to the administration of quinine. It is very efficacious in early chordee, and, when given in full doses, in many cases of ovarian neuralgia.

Morphine, atropine, and glonoin in small doses are the three best remedies one can give in cases of hemoptysis.

As a prophylactic of recurring tonsillitis, the teeth, gums, and especially the base of the tongue should be brushed two or three times a day with a moistened toothbrush, dipped into fine sodium bicarbonate. This oral disinfection should be practised every morning at least, for the flora of the mouth is particularly apt to flourish during sleep, when none of the mechanical and detergent effects of mastication, salivation, and speech are in operation. Of internal prophylactic remedies, I consider sodoxylin and a saline laxative the best. Forcheimer thinks he frequently has prevented an attack of quinsy by giving 5 grains of salol every two hours for forty-eight hours.

A flight of storks not so long ago visited Wilmette, the Chicago suburban village where I live. These birds of good luck were first seen over Evanston and their course was watched from the best residences of that suburb with anxiety and alarm. In that particular section but very few people desire a visit from the stork, since it always brings care and noise and disturbance of old, settled ways.

But these birds were evidently heading for the region of Lake Forest. As soon as their coming was observed, consternation ran riot through that patrician quarter. Servants were summoned in hot haste out of every mansion, and there was a great beating of tom-toms and firing in the air. For by the beating of the tom-toms—and

by certain other precautions—one can often scare away the stork.

So it happened this time—and Society (with a big red capital S) breathed relief. Soaring high above the din, those storks circled south by sou'west without stopping, and many of them nested in the neighborhood of Milwaukee Avenue, where they are better acquainted and more welcome.

The stork likes to make its nest on the roof of the chimney of a humble home, but it does not often roost on the palatial residences of the North Shore. On Milwaukee Avenue they charge this to "a Yankee trick." Whatever the reason, the fact makes Lake Forest a lonely place. No rout of childish feet upon its lawns; no prattle of baby voices in its halls; its atmosphere serenely still—still and dead as are the hearts of the women having there their abodes.

Noticing the direction the storks had taken, I went down in the neighborhood of Milwaukee Avenue not long after, and there I came upon a throng of children that amazed me. They were running about everywhere. They were arguing loudly, or whispering mysterious secrets, or playing their different games. The sidewalks were full of changing groups; the curbs were lined; and from one gay circle out in the roadway came the sweet shrill chorus of a simple song.

Upon the edge of that swarm I stood still in admiration and counted them. There were just thirty-two children within my easy grasp; nor had they been collected throughout the neighborhood for a show-bunch. All along, as I walked up the voicy-noisy street, I met little babies in their mother's arms and children of all ages at their play—I counted nigh onto two dozen more. And were these noisy jolly throng homeless waifs and dirty ragamuffins? No, they were the sons and daughters of respectable people, decently clothed and cared for, and living in comfortable modern houses.

Is human nature the same in some of the North Shore suburbs as it is on Milwaukee Avenue, or has culture sapped its strength? If you of the swell localities, Madame Sansenfant and Madam Amour-Propre,

should see the babes and kids along Milwaukee Avenue, what would the sight do to you? Imagine fifty little ones playing, "Hill-Dill" and "Ring-around-o' Roses" on Lake Shore Drive or Drexel Boulevard, or in the sacred precincts of Lake Forest! It would be the wonder of the city. It would mean the filling of your empty churches. It would foretell the regeneration of the Puritan race.

The United States, and especially the section known as New England, is a farm which needs a change of crops, and it is rapidly getting that change by the survival of the fittest. The Puritans came over here, and by dint of fighting and by virtue of their hardihood they grew to the stature of heroes. They conquered the country—but afterward the country conquered them. For their reddest blood was always flowing out into the stern life of the advancing frontier and into the making of newly making states; while the Puritan who stayed behind cultivated himself and anon began to prune away his inherited vitality.

The old strength still does break out from time to time. It reddened the fields of Gettysburg and the hill of San Juan, and it bides its hour to do such deeds again. But the cultivated Puritan is apt to deprecate this vigor. As his blood became blue it grew cold. He belongs to a Peace Society. He hates scrapping, and expansion, and new people, and responsibilities. He wants none but a small-sized family; and his children grow up into futile bachelors and faddish old maids.

It is a good strain, this Puritan blood. It makes the best pioneers in the world; yet, on its own soil, as every one knows, this stock is as much doomed as are the Kanaka of Hawaii.

Where can one look for salvation? It is hopeless to suggest a simpler, a plainer life. The country comes to the city, and there it runs the same race of fashion, refinement, emptiness, degeneration; and though a remnant will be saved by the counter current now setting in toward country homes, still, the real chance for the Puritan is in intermarriage with stronger, fresher races. But the Puritan who is rooted in

our soil would sooner see his family-tree decay and perish from the earth.

Yet the new race is on the way. There have been immigrants other than the Puritan—Irish, Scots, Germans, Swedes have grasped the magnificent opportunities presented by the New World, and in the second and third generations they are approaching their prime. Albeit, as unmixed races, they, too, would sooner or later become decadent.

But they will not remain unmixed; and when all these peoples, Swedes, Irish, Yankees, Scots, and the rest are merged and their blood has been mingled through and through, then shall we have the real AMERICAN RACE. This new race will not come right now, or soon, or at any measured period, but it is already coming; and it will culminate in a type better than anything the world has yet seen, the flower of humanity, destined to rule for long years. The Puritan now has his golden chance to impose upon this evolving race the splendid strain of his blood and the stamp of his cherished ideals. Will he grasp the opportunity?

Not, if he clings to his prejudices. Not, if he frightens away the Stork!

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My heart goes out in tenderness to the man who has tried, and failed. He is not rare. Indeed, he is but one of the nine hundred and ninety-nine to be found in every thousand who put a foot forward into unknown darkness, only but to fall.

But though the experience saddens and staggers; though it does not seem to profit him; though it calls out all his faculties to weather the storm created by his efforts to maintain himself and his during the trial, he is stronger for the trouble, and his profit has been quite as great as has that of the One who stepped upon solid ground. His portion has been experience; that, dearly bought though it may have been, will be capital secure when he tries again. And, too, his experience has been a danger signal and the kindness to the many who might try as he has tried.

We all have our goals. They seem to be so brilliantly lighted that a straight-away path is beacons for us, and we rush head-

ong into the way marked out, only to realize that our goal recedes like the end of the rainbow of the stories of our youth. We find pitfalls in the shadows of the great light; encounter stumbling blocks that must be rolled aside and forks in the road the choice between which is a trying task. And earnestly we strive to remove all difficulties, often but to find that we have had naught but our labor for our pains.

We sit down to think it over. We brood and tear our hair, and make miserable with our misery. But let it not be for long.

Life is good—filled to the brim with much that is really worth while. And the hunt is in us, and the hope, and the faith; so let us lift our heads and with our purpose clearly defined let us out and for it.

To brood is to make brood.

To sorrow is to make sorrow.

To whine is to disgust.

So, even though the rainbow ends in a pot of junk, let us smile and make smile as we try again.

There would be no such thing as success if all succeeded; no joy, if all were joyful. Success and joy are comparative conditions, and are only for us in such a measure as we may be able to take them in.

And if we fail, and fail again, we may know the reason, if we will. We are inclined to blame others for ill-success, to elicit sympathy by talking of conditions and environments; but deep down in our own hearts we know that our own lack of strength to cope with these conditions and environments, the lack of certain elements in our natures has brought the Black One to us, and that these rocks and pitfalls in the roadway are but chapters in the lesson of life. One word more.

If things go wrong with you, cut envy from your heart. If you see your neighbors doing the thing that you would like to do, just speed them along. It lowers your self-respect to nurse a wrath against anyone.

We can tell the general type of mind and heart to which a man belongs. We can tell what books he reads—the prevailing thought with him—what Master he follows. We talk with a man on social questions, and we soon know who his Master is. If

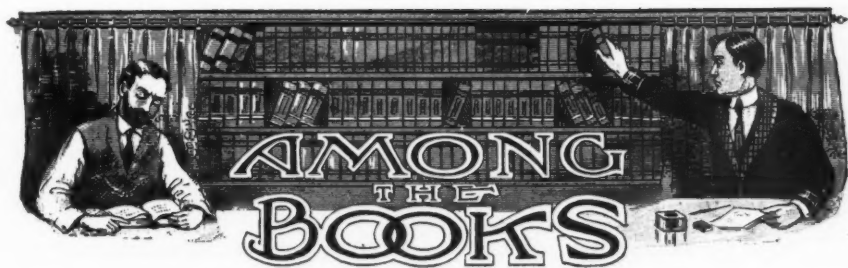
he is fond of a strong central government and has aristocratic tendencies, he is a follower of Alexander Hamilton; but if he believes in the “common sense of most,” in the people’s ability to take care of their own affairs, then he is a follower of the writer of the Declaration of Independence.

There are times and seasons when the best friends would better be far apart in space. Domestic happiness would be increased and last longer if men and women did not live so much together. The friends at Brook Farm could not endure the bodily presence of each other. They scattered, and continued friends. Doubtless the disciples had been together long enough. Peter and Paul did not quite understand one another. There is a personal individuality that must be allowed for.

If you read Emerson a good deal when a boy, it will appear in the formation of your sentences. Once, a boy had his ideal of eloquence: it was to be noisy of speech and to pound the furniture. And when some fortunate evening he heard Wendell Phillips, he heard the orator of America “converse” with a multitude as if he were talking to an individual. After that, the boy did not declaim; he did not sweat and froth and pound any more. When Wendell Phillips came in, minister’s sore-throat went out. The boy found out that what the world needs is not *noise*, but *light*. This, possibly, may apply to the practice of medicine. Think it over.

Doctors should get closer together than any or all other workers, and if we should more frequently scan the Hippocratic code we would realize more completely our duty. “Put yourself in his place” is a good thought for us to keep in mind, and the old German proverb which freely translated reads, “To know all is to forgive all,” should be ever before us.

Let us study and strive to ever have regard for the “other fellow,” for God only knows the burden he bears, the blood he sweats; to be glad when gladness comes to him, sorry for him in his troubles, rejoice in his success, sorry for his sorrow.



STRUEMPPELL'S "MEDICINE"

A Textbook of Medicine for students and Practitioners. By Adolf von Struempell, M. D., Professor of Special Pathology and Therapeutics at the University of Leipsic. Fourth American Edition, translated by permission from the 17th revised German edition. With editorial notes, additional chapters, and a section on mental diseases, by Herman F. Vickery, A. B., M. D., Instructor in Clinical Medicine, Harvard University, and Philip Coombs Knapp, A. M., M. D., ex-president of the American Neurological Association of the New England Society of Psychiatry. In two volumes. New York and London: D. Appleton & Co., 1911. Price \$12.00.

In the first volume a variety of conditions are described, namely, acute general infectious diseases, diseases of the respiratory organs, diseases of the circulatory organs, diseases of the digestive organs, and diseases of the urinary organs.

Struempell's textbook presents the essentials of our present knowledge of medicine. To this end the author has brought the results of his enormous clinical experience into the closest possible relation with the data of pathologic anatomy and general pathology. In discussing therapeutics, he has endeavored to deduce from the nature of the symptoms a basis for rational medical opinion and treatment.

This is a book of clinical medicine, especial stress being laid on the presentation of clinical phenomena as observed by the physician. The work is as the author says, "the outgrowth of an unceasing broad clinical activity and is much more a product of the hospital ward than of the study."

Throughout the entire work the author has endeavored to bring the contents to the level of contemporary medical knowledge. In the discussion of uremia, for instance, the author passes in review the various theories that have been suggested as to the cause of this condition, drawing attention to one of the most recent, namely, the production of nephrolins—a theory which has been advocated by Ascoli and others. While citing these new theories, the author nevertheless is forced to the unsatisfactory conclusion that, in spite of the large amount of patient research that has been expended on this problem, no solution yet proposed has met with general acceptance.

The second volume is devoted to diseases of the organs of locomotion, constitutional diseases, diseases of the nervous system, including those of the peripheral nerves, of the spinal cord, of the medulla oblongata, of the brain, neuroses without known anatomical basis, and mental diseases.

The chapter on chronic polyarthritis will well repay perusal. The author believes that the so-called "rheumatogenous influences" have probably been instrumental in the production of this affection, and, while not giving a really scientific classification, he goes thoroughly into the clinical features under the various forms.

While not as exhaustive as some of the special reference works on medicine, this work nevertheless is peculiarly practical, the salient features being set forth clearly. The illustrations are numerous, while the good quality of paper used in the volumes renders them unusually clear and distinct. The general arrangement of the subject-

matter is convenient and easy of reference. The translation is unusually faithful, while the English in which it is couched is so good that it has the merit of concealing the fact that the work was originally written in a foreign language.

As a record of laborious clinical work, these two volumes are worthy of the highest commendation, being as they are a capital exposition of the principles and practice of medicine as they appear to one eminently well qualified to describe them from his own extensive experience.

GEO. F. BUTLER.

HINSDALE'S "HYDROTHERAPY"

Hydrotherapy: A Treatise on Hydrotherapy in General; Its Application to Special Affections; the Technic or Processes Employed; and Use of Waters Internally. By Guy Hinsdale, A. M., M. D. Illustrated. Philadelphia: W. B. Saunders Company. 1910. Price \$3.50.

This book offers a handy and useful guide for the administration of hydrotherapeutic measures in the different diseases where they are indicated. The reviewer confesses that he is sometimes startled at the lengths to which the advocates of hydrotherapy will go, but undoubtedly much good is done by these methods if they are properly applied, and for this purpose an authoritative guide, such as the book before us, is indispensable.

KELLAS' "INORGANIC CHEMISTRY"

Manual of Practical Inorganic Chemistry, Including Preparations and Qualitative and Quantitative Analysis, with the Rudiments of Gas Analysis. By A. M. Kellas, B. Sc., Ph. D. London: Henry Frowde. 1910. Price \$1.35.

I have looked over these two books of Dr. Kellas' with much pleasure. It is rare that one finds chemical facts and theories so practically stated as is done by this author. These books are especially valuable for the pharmacist and physician, since they treat in detail the preparations, both inorganic and organic, found in the Pharma-

copoeia. Detail tests and methods of procedure are given.

I believe that the doctor should spend a portion of his library time in refreshing his chemical knowledge. The most scientific work that is being done in medicine at this time is possible only with the aid of chemistry. Take "606" as a typical example. Take also the information to be derived from urine analysis and its practical value in the treatment of disease.

These books of Dr. Kellas' are so interestingly arranged that I believe that the doctor will derive much pleasure as well as valuable information in reading a chapter from time to time. Such has been my experience.

The price of \$1.35 each is so reasonable for the value given that I do not hesitate to urge readers to purchase a copy at once for their libraries.

F. P. SUMMERS.

KELLAS' "ORGANIC CHEMISTRY"

Introduction to Practical Organic Chemistry, Including Qualitative and Quantitative Analysis and Preparations. By A. M. Kellas, B. Sc., Ph. D. London: Henry Frowde. 1910. Price \$1.35.

WARE'S "PLASTER OF PARIS, AND HOW TO USE IT"

By Martin W. Ware, M. D., Adjunct Attending Surgeon, Mount Sinai Hospital, (N. Y.); Surgeon to the Good Samaritan Dispensary; Instructor of Surgery in the New York Post-Graduate School. Second edition, revised and enlarged. Price, cloth, \$1.25. Surgery Publishing Company, New York.

The exhaustion of the first edition and the persistent demand for this helpful book were the incentives for this second edition, which has been completely rewritten and enlarged and thus its scope of usefulness been greatly extended. Complete new drawings and marginal side notes in red embellish the book and ninety illustrations are used more clearly to put up to the eye of the reader the intent of its subject-matter.

Such information as History, Materials, Manufacture of Bandages, Storage, Bandages of Commerce, Calot Plaster Bandages, The Immediate Preparation of Bandages, Application and Precaution, Removal of Bandages, etc., are all given under the contents of The Plaster of Paris Bandages. Then follow such chapters as Application of the Plaster of Paris Bandage to Individual Fracture, Fractures of the Upper Extremity, Fractures of the Lower Extremity, Molded Plaster of Paris Splints, Plaster of Paris in Orthopedic Surgery, etc., and all presented in such a comprehensive manner as to make this book of particular service to every doctor. The mechanical features of the book are decidedly striking.

HISS AND EBERT'S "STANDARD FORMULARY"

The New Standard Formulary. By A. Emil Hiss, Ph. G., and Albert E. Ebert, Ph. M., Ph. D. Complete in 6 parts, comprising (1) pharmaceutical preparations, (2) domestic and veterinary remedies, (3) proprietary and synthetic remedies, (4) perfumes and toilet articles, (5) domestic utilities, (6) soda-water and other beverages. Chicago: G. P. Engelhard & Co. 1910. Price, stout buckram, \$5.00.

In 1909, January issue of this journal, the writer had occasion to discuss in favorable terms the first part of this reliable collective formulary, then issued as a separate volume. The completed work, now under review, in every way fulfils the promises of the publishers, and it can only be repeated that it constitutes a most valuable, one might say indispensable, addition to the library, not alone of every pharmacist, but to that of every enterprising practitioner as well. Its wide scope is indicated by the contents as enumerated above, the pharmaceutical preparations comprising, of course, the greater part—one half out of the nearly 1200 pages—being representative of all the pharmacopeias, dispensatories, and recognized formularies of the world, besides the many formularies from other sources, numbering altogether probably 3000 or more preparations.

As to the other five departments, it stands to reason that the alert doctor who familiarizes himself with the contents of this formulary can greatly enhance his efficiency among his clientele as well as in his home life. Thus the 200 pages devoted to proprietary and synthetic remedies—possibly 4000 titles—supply him with invaluable information concerning these products, as to nature or composition. Many a doctor can make himself useful by giving advice (not to mention his personal affairs) regarding the treatment of horses, cows, and the other domestic animals, besides housepets. And, finally, he should almost daily be able to glean serviceable advice from the departments devoted to cosmetic preparations (including massage creams, skin-creams, hair and tooth preparations, etc., etc.) and the so-called "domestic utilities," telling how to prepare cements, glues, insecticides, parasitocides, disinfectants, inks, cleansers, polishes, blacking, paints, stains, and that multitude of useful household formulas impossible to group. The book should pay for itself over and over again.

A. G. VOGELER.

KELLOGG'S "BATTLE CREEK DIET LIST"

The Battle Creek Sanitarium Diet List. By J. H. Kellogg, M. D., Superintendent. Modern Medicine Publishing Company, Ltd., Battle Creek, Michigan. 1909. Price 25 cents.

The detailed and far-reaching researches of Dr. Kellogg in dietetics are well known, and in spite of his equally well-known and evident leaning toward vegetarianism, the author of this little brochure has done much toward securing the recognition of the prevailing low-proteid standard of diet.

The purpose of the diet list is to assist those who appreciate the importance of diet and nutrition as factors in human efficiency, to regulate habits of eating in harmony with the latest findings of physiologic research. It is an excellent little guide to look up the caloric value of different foods, to determine the food requirements for different ages and sexes, taking into consideration, of course, the

occupation of the people whose diet we have to regulate, and, altogether, forms a valuable reference-list for the doctor's daily work. Dr. Kellogg has kindly consented to send this list to any physician who may ask for it, and we would advise our readers to avail themselves of this generous offer.

MUMFORD'S "SURGICAL PROBLEMS"

One Hundred Surgical Problems. The Experiences of Daily Practice Dissected and Explained. By James G. Mumford, M. D. Boston: W. M. Leonard, 1911. Price \$3.00.

This companion volume to Morse's "Pediatrics" (see *CLINICAL MEDICINE*, Aug. 1911, p. 913) follows the general plan outlined for the entire "Case History Series" which is being published by W. M. Leonard. The condition of the patients, such as may consult the surgeon every day or be referred to him by internists, are described briefly and concisely. The problems which are thus presented are discussed, and the treatment and result related.

Dr. Mumford does not present us with "one hundred operations without a death," or anything of that sort. Failures are reported as well as successes, and it seems to the reviewer that the former are even more instructive than the latter. There is nothing dry or wearisome in the volume. The style is attractive and the case-histories are handled in a manner as though the author might be relating them during a friendly call and were quite ready to discuss their merits and demerits. To judge from the two books—those by Morse and by Mumford—thus far issued, this series of case-histories will prove an unusually excellent one and is certain to find favor with the general practitioner.

JONES'S "DEFINITE MEDICATION"

Definite Medication. Containing Therapeutic Facts Gleaned from Forty Years' Practice. By Eli G. Jones, M. D., New Jersey. Published by The Therapeutic Publishing Company, Inc., Boston. 1911. 8vo, 312 pages. Price \$2.50.

Dr. Jones is an eclectic, and he browses about over the therapeutic field wherever he can find sustenance. He advocates Lloyd's specific medicines and Boericke and Tafel's homeopathic remedies, and anything else that seems good to him, without the slightest regard for the feelings of the respected Council, the revered Code, the consensus of medical opinion, the trend of medical belief, or facts proved beyond the possibility of rational doubt. Consequently, he is often absurd, always short-sighted, too egotistic to be conscious of his own narrow limitations in knowledge, and too set in his opinions to learn.

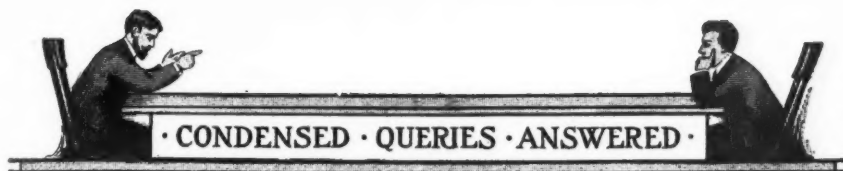
Nevertheless, such books and men have their uses, and it is good to meet a man who is not conventional, but looks with such eyes as Heaven has blessed him with, and thinks with that modicum of brains vouchsafed to him, instead of taking his beliefs from authority. Such men are apt to stumble on valuable truths not as yet to be found in the "most approved textbooks."

For the personality of authors we care not a jot. For their errors we care as little. We make mistakes ourselves; so do all other men, even the immortal three, Hare, Cushny, and Sollmann, and we expect faults and blemishes in all human endeavor. But we like to search such books, in the hope that we may find therein some stray fragments of useful matter that has escaped the others. Don't be too sure you'll not find any in Jones's book. Better look.

WECHSELMANN'S "TREATMENT OF SYPHILIS"

The Treatment of Syphilis with Salvarsan. By Professor Wilhelm Wechsellmann, Berlin; with an Introduction by Dr. Paul Ehrlich. The Only Authorized Translation, made by Abr. L. Wolbarst, M. D. New York: The Rebman Company. 1911. Price \$5.00.

Wechsellmann was one of the first clinicians invited by Ehrlich to investigate the merits of his newly discovered remedy for syphilis, and a report by this noted observer upon arsenobenzol is of particular interest to medical readers.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5743.—“Urethral Fistula.” A. L. S., Oklahoma, has under his care a man operated upon seventeen or eighteen years ago for anterior urethral stricture. The incision was made through the perineum and a sound introduced, opening up the stricture. This later closed, and with the well-known results. The stricture was complete, the urine extravasated through that opening that was made seventeen years ago, the skin on the pendent parts of the testis sloughed off and water extravasated there. However, the man seemed to get along fairly well till from exposure and exertion he had an exacerbation of his condition and the skin just above the pubes finally broke down from extravasation of urine.

“I took the patient to a hospital, operated, opened the stricture again, made an incision, opening the place above the pubes, curetted, packed with iodoform gauze. You could take a probe and pass into one opening, and it could be made to communicate with all the other openings. A sound was passed continuously for five or six months, when the patient thought he was well. Water passed freely, so he decided not to have me pass sounds any more. He had recovered normal weight—about 180 pounds. (His weight before operation was 135 pounds.) He now began lifting heavy things, and, as a result, the lesion above the pubes reopened, urine began to extravasate again; later the perineal incision opened.”

For a year the doctor has passed sounds, washed out all the sinuses with hydrogen dioxide, mercuric chloride, lysol, etc. He

has given iron, quinine and strychnine, for tonic effect, with salol, urotropin, potassium citrate, buchu, juniper, etc. Patient is now “at a standstill.” The man has had both lues and gonorrhea.

There is just one rational procedure in this case. Send the man to a good hospital for an operation. Have the urethra and bladder thoroughly treated, and when the invading bacteria have been destroyed, have a thorough operation done. At the present time there unquestionably are colonies of gonococci in the deep urethra (and possibly in the bladder), with streptococci or other pus-forming bacteria in the old lesions.

Healing could not possibly be secured under the circumstances, and you can never expect the man to recover unless the parts are rendered surgically clean, the edges of the wounds trimmed and the tissues brought together with sutures. Treatment will have to be continued for several weeks, as operation could not possibly prove successful until the underlying infection is controlled.

You might give this man large doses of calcium sulphide, echinacea, and nuclein for a week or two preceding his entering the hospital, cleansing the parts thoroughly with hydrogen dioxide, warm boric-acid solution, and then touching all available surfaces with pure oil of turpentine (U.S.P.). Dress with gauze soaked with an antiseptic oil. Apply the oil of turpentine only to the denuded surface.

The patient is in a serious condition, and we would suggest that you take pains to place him under the charge of a really

competent genitourinary man in a well-equipped hospital.

QUERY 5744.—“Anemonin as an Aid in Inducing Pregnancy.” J. C. H., Indiana, informs us that anemonin has been recommended to him as an aid in inducing pregnancy. Information bearing on this action of the drug is desired.

Anemonin is useful in amenorrhea, dysmenorrhea, and spermatorrhea, the drug giving strength and tone to the reproductive organs, especially in the absence of acute inflammation. The homeopath gives *pulsatilla* (of which anemonin is the active principle) “when the patient suffers from mental perturbation and apprehension or where genital maladies cause great anxiety.” When this mental state is present *during* pregnancy, anemonin is beneficial. It also relieves nervous exhaustion, headache, the constipation and dysuria of hysteria and pregnancy.

Pulsatilla is credited with a favorable influence upon diseased synovial membranes. In large doses, it depresses the circulation, respiration, and spinal cord, somewhat resembling aconitine in its action. In small doses, it stimulates the cerebral function, tones the sympathetic, increases cardiac power, and slows the pulse (rapid and weak) in nervous prostration. For detailed description see the chapter on anemonin, “Textbook of Alkaloidal Therapeutics.”

It can thus readily be seen that conditions which might prevent pregnancy would be materially modified and removed by anemonin; still, it would hardly be safe to regard this drug as a generally applicable aid in promoting this state. More effective agents are at our command.

QUERY 5745.—“Proctitis.” R. W. G., Montana, sends a specimen of mucous alvine discharge for microscopical examination, and offers the following clinical data: The case originally was one of gonorrheal proctitis (microscopical diagnosis). Symptoms disappeared temporarily after injection of Neisser bacterin (Mulford). The discharge commenced again about a month ago, but examinations have failed to reveal

the gonococcus or other pathogenic bacteria, though some unrecognized bodies are found.

Our pathologist reports that you have to deal with a chronic proctitis. Examine, with speculum and reflected light, the lower bowel and discover the exact conditions. You may find a small ulcer just above the internal sphincter or even a blind internal fistula.

We should dilate the sphincter, cleanse the bowel thoroughly with a solution of hydrogen peroxide, 1 part, in water, 3 parts, then with a warm boric-acid solution. Dry the mucosa carefully with a cotton-wrapped applicator and swab thoroughly with thymol iodide in petrolatum; or, better still, after drying, inject into the rectum a dram of such preparation. Supply the patient with carbenzol or similar ointment, and a pile-pipe, and instruct the patient to insert 1-2 to 1 dram of the ointment each night; a laxative saline draught should be taken on rising in the morning. Give calcium sulphide, 1-3 grain four times a day for a week. If an ulcer can be detected, cleanse, touch with pure carbolic acid, neutralize in one minute with alcohol, then paint with pure oil of turpentine (U.S.P.), confining the application to the ulcerated surface. Then apply the foregoing ointment and insert a piece of gauze between the sphincters.

QUERY 5746.—“Furunculosis and Calcium Sulphide.” S. S., Iowa, is treating a boy two years old with “boils on forehead and head.” He is well nourished. The doctor wishes to know what dosage of calcium sulphide we would recommend.

In a case of furunculosis, we should suggest the use of calcium sulphide and the arsenates, preferably with nuclein. The boy may take 1-6 grain calcium sulphide every two hours and the arsenates of iron, quinine and strychnine after the two principal meals. Or you may give the nucleinated phosphates (iron, calcium, potassium and manganese) half an hour before food. Any child will take this tablet without objection. A few small doses of calomel followed by a laxative saline draught the next morning will also prove

beneficial. Be sure to keep the affected area thoroughly clean and evacuate each furuncle as soon as pus forms. Touch the cavity with a broom straw or toothpick dipped in pure carbolic acid, neutralize with alcohol, and then apply a little carbazol ointment or resin ointment. Watch the child's diet carefully. It might be well also to examine his urine. He may be diabetic.

QUERY 5747.—“Miliun.” C. L. J., Tennessee, has a lady patient who suffers with what he diagnosis as milium and has a muddy complexion. He desires to know what remedies are advisable.

Iridin and alnuin are both indicated in the case you so briefly describe. We should also be inclined to give calomel with podophyllin and bilein at 8 and 10 p. m. every other night for a week, and a laxative saline draught the next morning. Instruct the patient to take an epsom-salt sponge-bath two or three times a week (one ounce of the salt to two quarts of water). Diet carefully.

Milium, or strophulus albidus, presents small, pin-head to split-pea sized whitish or yellowish elevated papules, usually spherical in shape and slowly increasing in size up to a certain point. Diagnosis can be confirmed by incising a papula and making pressure, when, if you have to deal with milium, a small, white, round, oval or lobulated mass will be expressed. The lesions are commonly found below the eyes and on the border of the lips; they are also found on the genitals. Occasionally the mass undergoes calcarious degeneration, and cutaneous calculi are formed. Milia occur, as a rule, in infants or young adults. Sometimes they are congenital. Milia must be differentiated from xanthoma and moluscum.

Local treatment consists in incising the top of the papule and pressing out the contents; swab the cavity with pure carbolic acid, neutralize with alcohol in 30 seconds, then dress with a resin ointment. Electrolysis is recommended by many dermatologists as the speediest and best treatment. If for any reason these procedures are inadmissible, salicylic acid may

be applied until the skin exfoliates. The milia will then be destroyed.

QUERY 5748.—“Pityriasis Rosæ or Syphilitic Lichen?” I. D. R., Texas, requests suggestions as to diagnosis and treatment of a troublesome dermatosis. J. E. B., farmer, married, age 46, height 5 feet 6 inches, weight 140 pounds. Had scarlet-fever at three years of age and malarial fever at sixteen; gonorrhea at about twenty years of age. No other serious sickness until he contracted syphilis about two years ago, and for which he took “606” in February, 1911. However, neither the syphilis nor the injections had any effect on the present trouble. All symptoms of syphilis seemingly disappeared. Urine test shows: specific gravity, 1024; reaction, acid; albumin, none; sugar, none.

Present trouble: Ten years ago the skin on lobe of left ear thickened, turned red and began to itch. There was no moisture about it, but dry scales appeared from time to time. During the following winter it vanished, only to return the next spring, when it appeared on the cheek in front of the ear. This same thing has occurred every year since. Last winter, during the cold weather, it disappeared entirely, the skin becoming smooth and soft, with normal sensation.

At present there are a number of irregular spots on his face from the size of a five-cent piece to that of a silver dollar, one on the nose, where the skin is of a dark-red color, and which, when pinched, feels as thick as sole leather. No moisture appears at any time, but dry scales form over the thickened places. When the patient stays in the house or out of the sun and wind he does not notice it much, but when he is out during daytime he has to cover his face with cloths or else it burns and itches unbearably. If he is out more than usual through the day the burning and itching frequently keep him awake that night. The patient is not inclined to nervousness, but when his face is worse than usual or bothers him at night it makes him nervous and unfit for work. It seems worse when the weather is especially dry. Ointments and salves seem to have little if any effect.

Fowler's solution given to limit of tolerance has had no appreciable effect. Cloths wrung out of water, either hot or cold, alone give any noticeable relief.

We should like to have a blood-smear from this patient and scrapings from the affected area. The man may suffer from dermatitis psoriasiformis nodularis, parapsoriasis *en plaques*, or pityriasis rosæ. Lesions in the latter disease, however, rarely appear on the face. Itching is commonly an inconspicuous symptom. There is undoubtedly some underlying systemic disorder, and we should like to examine, not only the blood and scrapings, but also the urine. You do not say anything about the presence of indican and skatol, amount of urea excreted, etc. What is the character of the feces? It is just possible, of course, that you have to deal with a syphilitic lichen.

We should feel inclined to try a course of mercury alternated with calx iodata; iridin and rumicin would be useful adjuvants. Locally—after thoroughly cleaning the affected areas with tincture of green soap—apply thuja, 1 part; carbenezol, 2 parts; lanum, 2 parts; vaseline, 4 parts.

QUERY 5749.—“Uncertain Diagnosis in Shoulder Injury.” F. J. S., Oregon, was called to attend an unusually muscular and well-fed German laborer who fell and struck against an obstruction with his shoulder-tip. On stripping, it was seen that the elbow was held abducted three or four inches; the arm seemed long and the acromial end of the clavicle was humped up. On pressing the elbow up and the clavicle down, things would sort of grate and “click” together. There was no dislocation nor was the glenoid fractured downwards. Arm would drop and clavicle “hump up” on release of pressure. The end of the clavicle was free and torn from attachment. Two one-inch adhesive plasters were passed over the clavicle-tip and up and down upper arm, over the flexed elbow. These held things. An axillary pad felt good, and support was given, as in clavicle fracture.

The doctor's query is, “What did I have?” He would like to know what could be done with a torn and dislocated clavicle. “The

man needs his arm; but he's got something worse than a fractured clavicle.”

We fear, Doctor, that you *did* have a dislocation of the humerus, the blow involving the acromion, tearing the coracohumeral ligament, and dislocating the head of the humerus. Under the circumstances we believe it would be impossible for you to obtain fixation of the acromion, and if the fragment is much depressed and has become at all fixed, as it probably has by this time, it would be impossible satisfactorily to reduce the dislocation. The neck of the scapula may have been fractured.

An open operation seems to us essential, and the plastic work to be done is extremely delicate. Under the circumstances, we should suggest that you send this man to a hospital, or should you be in a position to perform the operation yourself, be sure to secure counsel. It is well to take such precautions and thus prevent a possible suit for damages. In these days the physician is never sure which of his patients is going to turn against him.

QUERY 5750.—“Supportive Splints.” W. B. A., Texas, finds it necessary to construct a splint, or rather a support, for the body of a child, and is “up the tree” as to what to use for the purpose. He has tried plaster-paris but it proved too heavy.

We suggest that you use a starch cast or procure from some of the large surgical supply houses several sheets of plastic splint material. These sheets consist of a specially prepared fiber backed with felt. They are moistened and applied, while wet, to the portion of the body it is desired they should fit. They dry very rapidly, and, once dry, retain their form indefinitely.

We are not familiar enough with the conditions you have to contend with, to advise very intelligently, but a cuirass of this plastic material, reinforced with three or four turns of starch bandage would, we think, meet your requirements. Binder's felt also makes a satisfactory splint. This material can be obtained in sheets of different thicknesses. In molding a splint, roughly cut to desired shape and size, dip in boiling water, and allow to cool. Apply

to the part, cover with a layer of cotton batting and hold in place with a roll of bandage. In a few hours the splint will be hard and dry.

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QUERY 5751.—“Chronic Gonorrhea.” A. O. S., Iowa, “would like some information on the treatment of chronic gonorrhea. The acute stage subsided in about four weeks and the patient improved. The discharge has lessened, but remains about the same. The patient complains of slight pain, during urination, about one-half inch from the meatus. There is no chordee, nor pain at any time. No cystitis. Health good. The amount of mucus is just enough to cover the glans, under the foreskin, every three or four hours. A microscopical examination reveals no gonococci.

Bear in mind always the necessity for instituting local and internal treatment conjointly; also vary the treatment to suit the conditions present in the individual. There can be no fixed treatment which will prove positively curative in *any* stages of *all* cases of gonorrhea. If the lacuna magna is infected or if the sinus pocularis or Cowper's glands have been invaded by the gonococcus, careful and prolonged medication is required. Sometimes eroded areas exist in the deep urethra and it is necessary to expose and treat them directly.

As you are aware, in “chronic gonorrhea” gonococci are not constantly present in the urethral discharge. The passage of sounds or the injection of a solution of silver nitrate or other irritant will, however, cause the Neisser bacillus to reappear.

You do not tell us just how long this patient has been infected; neither do you give us a clear enough idea of local conditions to enable us to prescribe positively. You might, however, irrigate the urethra with a solution of the sulphocarbolates, 5 grains to the ounce at first (gradually increasing to 10), following with injections of euarol into the deep urethra through a long-nozzled, hard-rubber uterine syringe or you may apply to the deep urethra, with a Williams or similar applicator, an ointment consisting of: methylene-blue, grs. 8; mercury bichloride, gr. 1; lanolin, oz. 1; petrolatum, ozs. 4.

Internally give hydrastin and some good antibleorrhagic combination, keeping the bowels freely open with a saline laxative.

It might be well to have the prostatic discharge examined. Secure a specimen by massaging the gland through the rectal wall. If you have a urethral speculum, try to locate the lacuna magna; if infected, with a blunt hypodermic needle inject a few drops of hydrogen dioxide, wash out with boric-acid solution, and then pass a broom straw, which has been dipped in pure carbolic acid, into the lacuna. Neutralize with alcohol in one minute.

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QUERY 5752.—“Cardiac Epilepsy.” W. T. H., Indiana, wishes to know how to make a differential diagnosis of cardiac epilepsy from petit-mal. He inquires what the “heart troubles are from which produce cardiac epilepsy,” and what are the symptoms usually found in cardiac epilepsy.

It is incorrect to speak of “cardiac epilepsy.” Idiopathic epilepsy is that form of the disease which cannot be accounted for either by organic disease, reflex irritation or morbid states of the blood. True epilepsy is never a sequence of cardiac disease, though naturally enough a serious cardiac lesion may exist in an epileptic individual, and heart complications are rather common.

Spratling, in commenting upon the undue proportion of functional and organic heart lesions encountered in 1070 cases of epilepsy, says: “We must not for a moment assume, however, that the epilepsy in these cases was *due* to the condition of the heart. On the contrary, in my opinion [in which the writer concurs] we may lay the cause of many of the heart troubles to the epileptic conditions, while in other instances they were present merely as coincidences. I believe that epileptics are unusually prone to diseases of the heart and lungs, and whoever has the opportunity of witnessing large numbers of epileptic seizures of a severe type—especially during the tonic stage—the stage of the single long contraction when respiration is suspended and the *heart under enormous strain*—will find himself wondering why more epileptics do not die during the seizure from the

forceful damming back of the blood upon the heart with consequent injury to that organ."

There *are* cases in which the heart lesion precedes and perhaps tends to cause epilepsy, but such cases are rare. Such instances occur late in life and are associated with atheromatous changes.

Of the 1070 patients observed by Spratling, 238 presented evidences of some form of heart disease or irregularity. Mitral regurgitation existed in 77; cardiac hypertrophy in 50; systolic murmur at apex in 10; mitral stenosis in 2; aortic regurgitation in 13. It will be readily seen that almost any heart trouble may be observed in the epileptic, but it would be practically impossible to prove that any cardiac lesion was in itself the cause of epilepsy, and we certainly cannot rationally speak of a "cardiac epilepsy."

If the theory advanced by Candler is correct (and extended experience and the results secured by treatment would prove it to be), any circulatory disorder would tend to produce systemic conditions rendering epileptic seizures possible, and a cardiac lesion might prove the irritative focus precipitating the explosion. Some writers (among them Balfour) state that diseases of the heart may cause pseudo-epileptiform attacks or spasms. English clinicians are inclined to associate the slow pulse and epilepsy, but here, again, the better-informed men regard the cardiac condition as an *effect*, and not the cause.

QUERY 5753.—"Mercurial Rheumatism." W., Georgia, is treating a lady patient, sixty years of age, who suffers from "mercurial rheumatism." She states that taking large doses of calomel for an extended period has left her a rheumatic. She is not "bed-ridden", but up and about. The left shoulder-joint and adjacent muscles appear to be affected. Cramps in the leg-muscles often prove troublesome. The doctor has treated her for rheumatism, without the slightest improvement. He desires to know if mercury ever really causes "rheumatism."

There is no such disease as "mercurial rheumatism." It is true that some physicians claim that mercury in any form causes

"pain in the joints," and any or all pains in the joints are, of course, "rheumatism" to them. The symptoms and treatment of mercurialism are undoubtedly known to you.

We question very much, however, whether the large doses of calomel have anything to do with the conditions present in the case under observation. The woman is probably autotoxemic. You are, of course, thoroughly familiar with the acid-emic theory and the modern method of treating the underlying pathological conditions which almost always exist in "rheumatic" subjects. In order to treat this woman scientifically and secure definite results, you must have a clear conception of the underlying disorders. Make a careful examination of the woman and her excretions. With the light so gained it will be possible to institute a rational treatment.

QUERY 5754.—"Calomel Incompatible with Ammonium Chloride." S., Arkansas, desires to know whether a poisonous compound is formed when calomel is given with ammonium chloride. Sometimes he wants to give the two drugs together in pneumonia, neuralgia or "biliousness."

According to some writers, calomel is incompatible with the chlorides of potassium and of sodium (see U. S. Disp.). It is soluble in most ammonia solutions, metallic mercury being precipitated in greater or less quantity, according to conditions. Left in contact with a solution of ammonium chloride, calomel is gradually converted into the corrosive mercuric chloride, which dissolves in the water. The decomposition occurs more rapidly with a concentrated solution and at an elevated temperature. The presence of peptic juices is said to favor the reaction. Hence in view of the uncertainty of the reaction, it hardly seems wise to give calomel and ammonium chloride conjointly, at least for more than a day or two.

The mild mercury chloride should be exhibited alone (or in conjunction with emetin, podophyllin, leptandrin, euonymin or other hepatic stimulants), and in *small* divided doses. It is best given in the evening. The other drugs should be exhibited for two or three hours.